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JPRS Report

Central Eurasia

Military Affairs

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Central Eurasia

Military Affairs

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ARMED FORCES

Growth of Other 'Power Structures'

94UM0534B Moscow KRASNAYA ZVEZDA
in Russian 2 Aug 94 pp 1-2

[Article by Oleg Falichev: "People in Shoulder Boards: When the Russian Armed Forces Are Cut, the Number of Other Power Structures Grows."]

[Text]Notes of a military observer.

I recall documentary films from war times. Once in a while they still appear on our TV screens. An old woman of one of the liberated cities greets a column of our troops. Throwing up her hands, from time to time she shouts to the passing soldiers: "My sons!" For her it made no difference what their rank was, or what combat arm they belonged to. For her they were all sons, soldiers of the same liberating army, even if the column contained SMERSH troops, border guards, or NKVD troops.

What's the point of this remembrance? For the civilian, the ordinary taxpayer, even today it makes no difference what sort of shoulder boards the soldiers have, or who is wearing what uniform. Or if he wears it at all. Something else is more important to him. How many soldiers are being maintained with his hard-earned money. And how necessary is this to the state. This is why one can understand the man on the street (in the good sense of the word) when one day he suddenly realizes with astonishment that he has been fooled for a long time. They talked and they talked about reforming the Armed Forces, about their numerical cuts, and then it turns out that nothing of the sort occurred.

I have in mind the number that surfaced on the pages of newspapers, and so they say, resounded from the mouth of our political leader, of 3 (three) million military in the country. If military is the same as army, then army means that everything in it is as before. Apparently even the members of parliament were alarmed. There were talks about how, allegedly, neither the defense minister nor the chief of the general staff knows precisely how many people are in their department. That their responses contradicted one another. And that thus there was neither reform nor order in the Armed Forces. What is the truth?

Just recently KRASNAYA ZVEZDA turned three times to the topic of reforms in the Armed Forces, with analytical materials (5-11-94, 6-18-94, 7-13-94), recounting in detail what has been done in the two years of existence of the Russian Army. There is no point in repeating it. I believe it appropriate just to quote here the words of the Chief of the General Staff of the Russian Armed Forces, Col-Gen Mikhail Kolesnikov, to the effect that despite the difficulties of financing, the process of army reform is continuing and the Concept of Development of the Armed Forces devised by the

Defense Ministry is being carried out. The president also duly assessed this work in his message to the Federal Assembly.

Is it still necessary to prove that despite all the difficulties and contradictions, reforms in the army are visibly progressing, and their rate is no slower than the reforms in society as a whole? But since many critics of the army are especially unhappy with its numerical strength, I will dwell on the aspect of reform of the Russian Armed Forces that is very complex and painful for many, the cuts.

Three million military. Where did that number come from? After all, there is easily checked and already published data on the numerical strength of the Armed Forces. In just two years they were cut by 600 thousand men, and today number 2.2 million. This was announced by the Defense Minister, General of the Army Pavel Grachev back at a press conference devoted to the second anniversary of the Russian Armed Forces. This would seem to be as clear as can be. So why do other figures continue to appear in newspaper articles? Isn't it because some gentlemen of the press, when they set about to write on military topics, have not learned to distinguish authorized strength from actual strength? I will remind them. **Authorized strength** is the number of positions for service members provided for by the tables of organization and equipment of military control agencies, formations, military units and institutions that are part of the Armed Forces. The **actual strength** is the number of service members that actually perform their duties in the slots provided for by the tables. The difference between authorized and actual strength is the current shortage of personnel, which for quite explainable reasons changes every day and even every hour. And when that same "MK" at one time noted the difference in the figures given by the first officials of the Defense Ministry, that did not contradict the facts.

But here is the main thing. Clearly we must recall how many men we had under arms just recently.

OUR REFERENCE. Before the adoption of the 1989 political decision to cut the army by 500 thousand men, the USSR armed forces, which were part of the Warsaw Pact, had a numerical strength of more than 4 million 250 thousand service members. From 1989 to 1991 this reduction plan was implemented. At the same time, the country's leadership made the decision to withdraw troops from the territory of the other states and subsequently to disband the Southern Group of Forces, the Central Group of Forces, the Northern Group of Forces, the group of forces in the Mongolian Peoples Republic (since 1987) and the contingent in Cuba. Then subsequently a State Program was developed for withdrawal of Russian troops from the territory of other states, and their disposition and housing. It was introduced by the Order of the Russian President in June, 1993. The Ministry of Defense did colossal work to implement these decisions. Such a regrouping of troops and forces in

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peacetime was unique. As a result of the measures taken and the transfer of part of the Armed Forces to the new sovereign states on the territory of the former USSR, by the moment of creation of the Armed Forces of Russia (5-7-92), their authorized strength was 2.8 million service members.

Here are the dynamics of reduction. While in 1992 we cut more than 200 thousand service members, in 1993 we cut nearly 300 thousand. By January 1, 1995, the Federal Law on the federal budget for 1994 calls for an authorized strength of the Armed Forces of slightly more than 1.9 million service members. From this it follows that the main burden of reductions of the last 2.5 years falls on this year.

"As you can see, for all this time our army has been in a state of continuous, massive reduction, which clearly must be allowed for," says the Chief of GOMU [Main Organization/Mobilization Directorate] of the General Staff of the Russian Armed Forces, Lt-Gen Mikhail Klishchin.

The figures with respect to officer personnel are also eloquent. Not everyone knows that there is a plan for discharging officers that is still not broken down. On the contrary, as is evident from the table, it is being implemented well ahead of time. For example, while in 1993 we were supposed to discharge 19,647 officers according to the plan, we discharged 69,033. We are way ahead in 1994 too, as is evident from the table. There was even a danger that the process might become too intense due to the drop in prestige of military service, the comparatively low wages, and the social dissatisfaction. The employees of the personnel agencies are already voicing such alarm. According to data of the Main Directorate for Cadres of the Russian Defense Ministry, recently very many young officers, up to age 30, have left the army for various reasons. In 1992-1993 alone, 68.5 thousand of them were discharged. As a result, the shortage of officers in the army and navy is approaching 100 thousand today. It is impossible even to imagine the load this puts on those remaining in service.

But there is also another side to this coin. It might seem surprising to some, but the reduction is a very expensive affair. At times it is more advantageous to leave an officer in service than to discharge him. Why is that? Because to discharge means to pay monetary compensation in accordance with the current legislation, to provide an apartment, to assign a pension. If you consider that tens of thousands of officers are being discharged today, you can understand what a difficult matter it is.

Says the Department Chief of the Main Military Budget and Finance Directorate [GUVBiF] of the Defense Ministry of the Russian Federation Col Igor Romanov, "By our calculations, in order to discharge 75 thousand officers from July to September 1994, we will have to spend more than 1.5 trillion rubles."

This sum includes money allowances, including one-time payments at discharge, ration and clothing allowances, expenses for moving to a new place of residence,

and payment of pension. For this reason, it is hardly right to force or to thoughtlessly push through this process, bowing to popular sentiment. Especially since the "allies" (under the USSR) discharge of officers, including alas those without housing, has complicated this task even more, and this has made the burden of social dissatisfaction even heavier.

It is a paradox, but it turns out that it is more expensive to cut the army than to maintain it. And how mistaken they are who assume that once we cut our own army to the bone, we will then at once become rich and satisfied.

But in general, the end of 1994 is the accounting stage in the mass reduction of the Armed Forces (from 2.8 million to nearly 1.9 million service members) for the last two to three years. Incidentally, the decision in this regard was made back on July 27, 1992, immediately after the order of the President to create the Russian Army. Then the plan was to cut 700 thousand positions of service members in this period, now the planned indices have been increased.

They say there is no smoke without fire. Since the figure of 3 million military has appeared, there must be something to it. What? We who grew up in a totalitarian system know well how often the state was sly with its citizens. We were taught not to trust the state, but to rely more on rumors, which as a rule were confirmed. And our people, like the old woman in the war film chronicle, have gotten used to including in the army everyone who wears shoulder boards. And there are indeed many such. Wherever you glance falls, as they say, it strikes shoulder boards. Which of course, some of their owners have not worn for years, preferring civilian dress, but at the same time not refusing their salary for military rank. It hardly makes sense to enumerate every single power structure. But let the reader summon up his patience and become acquainted with a list of at least some of those who are covered by the new general military regulations of the Armed Forces of the Russian Federation. These include: the Border Troops of the Russian Federation, the Internal Troops of the Ministry of Internal Affairs, the Railroad Troops, the Civil Defense Troops, the service members of the system of federal agencies of state security, the Chief Directorate of Security of the Russian Federation, the Federal Agency of Government Communications and Information [FAPSI] under the Russian president, the State Fire-Fighting Service of the MVD [Ministry of Internal Affairs], and the military formations of a whole group of other ministries and departments of the Russian Federation. Which? This evidently implies the troops of the Ministry of Communications and Ministry of Special Construction, which even the former Supreme Soviet voted to eliminate. According to the data of the Main Directorate of Personnel of the Russian Defense Ministry, for example, there are around 30 purely civilian structures to which some 1000 officers have been assigned under various pretexts. Imagine, a whole cavalry regiment was even assigned to our Goskino [State Movie] agency!

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As we see, quite a group is forming. But what does it have to do with the army or to the missions it performs? A very indirect one. As was stressed by the Defense Minister of the Russian Federation, Gen of the Army Pavel Grachev, at a meeting with deputies of the State Duma, the problem of the army also includes the fact that "the current budget provides for financing of general military expenditures, although many currently existing militarized structures have nothing whatsoever to do with the army." Are we to be surprised that more than 70 percent of the officers today have income even lower than many other social groups?

But how many people are in these structures? These figures, as once up a time the numerical strength of the KGB, remain locked up tight. But it doesn't take great intelligence to make the calculations. If there are a little more than 2 million men in the Armed Forces today, and there are a total of 3 million military, then simple subtraction shows that there are still nearly one million men in other power structures in service. But again I stress that they have nothing to do with the army. In addition, if Armed forces are being permanently reduced, and we are convinced they are, then the numerical strength of many of these structures is now growing every year. Is it good or bad, if for example, those same Internal Troops of the Russian MVD make up, as they say, more than half of the Ground Troops intended, as we know, to repel foreign aggression? Probably bad. At least because in the democratic West, after which we model ourselves, police functions of their own internal formations, which in own way or another have been imposed on them, have never been approved. Today this is explained to us as the need for a stronger war on crime, and it is even suggested that citizens "pay up" for it from their own pockets. Well, it is high time that we established order in the country. Just as we must strengthen our borders, government communications, the FSK. But then evidently we have to divide it up precisely: meat to one side, flies to the other. Why?

First of all, the army does not need someone else's glory. Second, the country, I assume, must know not only its heroes, but also their benefits and wages. After all, precisely these structures have been able recently (in contrast to the army) to pick up considerable wage increases and other benefits for themselves. And now a colonel of the Russian Army, who has served for 25 years, receives roughly the same as a warrant officer in his first year of service in the Main Directorate of Security of the Russian Federation. And the labor of an officer in the FAPSI, under the Russian President, as I learned at the GUVBiF of the Russian Defense Ministry, is generally paid for at a rate 1.5 to 2 times higher than the labor of officers in the army and navy. But in the internal troops, it turns out, those articles of the laws "On Defense," "On the Status of Service Members," about which officers of the Russian Army can only dream, operate wonderfully. Take the six minimal [lump-sum monthly] payments for head of family and the 3 for each family member when he retires, and free

travel to vacation spots for members of his family. This is all the more strange since we would seem to have all taken the same oath, live under the same regulations, and protect the interests of the same state. But it turns out that the state has its favorite sons, so to speak, in the form of the FSK, the Internal Troops, the Border Troops, and its stepsons in the form of the Russian Army.

Alas the following also confirms this thought. Not long ago a new monthly supplement was introduced for service members, counterintelligence agents, the border troops, the Internal Intelligence Service of the Russian Federation, FAPSI, the Main Directorate of Security of the Russian Federation, the Security Services of the President of the Russian Federation, associates of the agencies of internal affairs, and the tax police, for those who already have the right to a pension but continue to serve. It amounts to from 25 to 50 percent of the sum of a pension. And some of the above departments in addition have been authorized to establish other supplements, up to 50 percent of service pay and to increase the pay itself. And this is done, as a rule, bypassing the interdepartmental commissions and Duma committees that are supposed to coordinate these questions. Is it that those closer to the leadership get to live better? Be that as it may, it turns out to be like in the proverb: Friendship is one thing, profit another. Article 5 of the first chapter of the General Military Regulations of the Russian Armed Forces, ratified by the President of the Russian Federation on 12-14-93, about military service as the basic form of state service and its priority over others, including other activity of citizens of the Russian federation, now remains just an empty declaration.

And one last thing. One can argue endlessly about what numerical strength our Armed Forces should have, and refer to international experience of 1 percent of the population. But you can't ignore other time-tested components either, and you cannot ignore the special geopolitical position of Russia. These factors suggest that the numerical strength of our Armed Forces must correspond to: a) the level of existing and potential threats; b) the present-day economic capabilities of the country; c) the availability of human resources. If this is not understood and supported by the appropriate political decisions, I think it is quite problematic to talk of the effectiveness of further reforms in the army.

In preparation for this article, having worked among people whose job it is to deal with the questions of planning the development and reduction of the Armed Forces, including those in the General Staff, I can say that you do not meet retrograde types among them, with imperial ambitions. They all understand the objective need for reasonable reform of the Russian Armed Forces under the difficult conditions that our country is experiencing. At the same time, this process has to be planned and gradual. As was said by the President of Russia at a meeting with graduates of military academies and schools.

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Our army has never grumbled, however hard things have been. It never carved out special benefits and privileges for itself. On the contrary, as they say, it has taken the blows for the mistakes of politicians and diplomats, in Afghanistan, in Tbilisi, Baku, Vilnius. And I assume it is

right to hope for at least a professional understanding of its problems, and more active participation of the state in their solution. After all the army still has decent and honest people, who still have a glimmer of hope for changes for the better.

Causes and Dynamics of Discharge of Officers from the Russian Federation Armed Forces

	For 1992 (since 5-1-92)	For 1993	Since 1994 (up to 7-1-94)
Plan for officer discharges	36,000	19,674	15,498
Discharge of cadre officers for			
completion of service obligation	13,530	13,823	6,341
personnel organization measures	23,182	15,005	5,263
as not meeting the established requirements for service members	10,358	10,974	2,680
for actions besmirching the honor of service members	2,603	4,040	1,282
for other reasons	9,490	25,191	10,925
Total number of cadre officers discharged	59,163	69,033	26,491

Dynamics of Cuts in Authorized Strength of the Russian Federation Armed Forces

Year	
1992	more than 200 thousand
1993	nearly 300 thousand
1994	complete planned cuts to authorized limits

Military-Orthodox Church Coordinating Committee Meets

94UM05344 Moscow KRASNAYA ZVEZDA in Russian 5 Aug 94 p 1

[Article by Col Boris Lukichev: "God to the Aid of the Army, Militia, Counterintelligence"]

[Text] At the regular meeting of the Coordinating Committee for Assistance Between the Russian Federation Armed Forces and the Russian Orthodox Church, representatives of the Internal Troops of the MVD [Ministry of Internal Affairs], the FSK, FAPSI [Federal Agency of Government Communications and Information], and the Federal Directorate of Special Construction were made members. Thus other state structures having military formations have followed the army to announce their policy of cooperation with the Church.

In addition, at the session held in the St. Danilov Monastery and chaired by Lt-Gen Ivan Mikulin and Archpriest Viktor Petlyuchenko, they considered questions of the participation of the Russian Orthodox Church in preparation for celebration of the 50th Anniversary of Victory, and analyzed the experience of cooperation of the command of the Far Eastern Military District with the Khabarovsk eparchy.

Locals Oppose Russo-American Military Exercises at Totsk

944F1179A Moscow NEZAVISIMAYA GAZETA in Russian 28 Jul 94 p 3

[Article by Sergey Kornilov: "Totsk Test Site as the Bone of Contention: Is It Necessary To Conduct Russian-American Exercises Specifically There?"]

[Text] Recently, I had occasion to visit Orenburg Oblast as part of a State Duma delegation which was to study the reasons for conflict arising around the joint Russian-American command-headquarters exercises which are to take place in September of 1994 at the Totsk proving ground. As we know, the State Duma deputies did not support these exercises. But then they received a letter signed by Ministers Andrey Kozyrev and Pavel Grachev, with a request to review the question once again, since the lack of agreement by the deputies drops Russia's prestige in the eyes of the world community and is very reminiscent of the times of the Cold War.

Upon our arrival at the place of the events, we received new information. First about the exercises. In the words of the military, this is a joint training-peacekeeping action. General Sedyakin, commander of the 27th Motorized Infantry Guard Division, at whose disposal and guests of whom we turned out to be, explained about this in great detail, emphasizing the fact that the exercises pose no danger—neither to the soldiers, nor to the

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population. These were staff games, rather simple in scope, whose purpose was to work out joint Russian-American actions on the introduction of peacekeeping forces into a zone of conflict and separation of the presumed enemies. This was to be followed by peacekeeping in the zone of conflict, stabilization of the situation, transfer of power to the lawful organs of authority and withdrawal of the peacekeeping forces from the "hot spot." The matter, undoubtedly, is a necessary one. We learned from the general that, quite unexpectedly for the military, harsh opposition to the planned exercises has arisen on the part of the local politicians. "Soldiers! Officers and warrant officers! Do not participate in the exercises with the Yankees! They will test psychotropic weapons on you! You will turn into zombies..." This was the text of a leaflet distributed among the military servicemen at the Totsk garrison.

The military assured us that conducting the exercises would not require any more funds on our part than ordinary planned exercises at the battalion level. Our trans-oceanic partners will pay \$2-3 million for all that will be supplied to the American side (fuel, food, materials for a tent city). They insisted on the need for these exercises, since extensive work has already been conducted: A theoretical base has been developed on the basis of UN recommendations, and preparations in the unit are in full swing. In the opinion of the military, it is generally unclear what this hullabaloo is all about. Larger scale joint Russian-French-American exercises in the Far East and in the North did not evoke any objections. Only 250 people and 100 transport units from each side will participate at the Totsk test site. Not a single combat shot is to be fired!

And the main thing—thanks to the series of such training actions, hope is emerging that the UN will grant our unit the status of a UN peacekeeping force. This would mean the allocation of considerable funds for its maintenance from the UN budget and, accordingly, a significant savings for the Russian taxpayers.

The Totsk proving ground is a huge, unpopulated hilly expanse with area of about 20 x 20 kilometers, covered with sparse and low flowering mixed foliage. Here in 1954, under the leadership of Marshall Georgiy Zhukov, the first (and only) combat exercises in the world with application of nuclear weapons were conducted. Over 40,000 military servicemen of the Soviet Army conducted operations in the zone of an atomic blast, equal in its capacity to the blast over Hiroshima. The purpose of these exercises consisted of proving to the entire world that the Soviet Army was ready for nuclear war. The airplanes which took off from the airport in Orsk brought the bomb to the site of the exercises. After the explosion, the place of conditional clash of enemies was subjected to attack for an hour by aviation and artillery shelling. Then, not special soldiers, but real live fellows in military uniform entered the zone of the blast epicenter.

Today at the site of the epicenter there stands a simple concrete marker with a small plaque, which reads: "To those who overcame danger for the common good and might of the Homeland." Out of the 44,000 who participated in the exercises, 1,000 persons survived. The losses among the civilian population are hushed up even to this day. Today the military insist that the population was given warning at that time, and that special shelters were even dug in every backyard. However, the residents themselves tell that there were no shelters, and that curious children watched the explosion from rooftops. And after the explosion they gathered berries and firewood in the zone...

The campaign against the exercises at the Totsk test site was undertaken by the Russian National Council, the Union of Officers, Labor Russia, the communists and the agrarians. They were joined also by the ecologists and certain other movements. The legislative assembly of Orenburg Oblast also voted against these exercises.

If we summarize the arguments of the opposition, we must note the following:

- People over this entire territory of the Orenburg region have the syndrome of the explosion of 1954;
- They do not trust the authorities. In 1954 they also said that there would be routine exercises. Today the authorities seem to be keeping quiet about the application of new types of weapons;
- The American side will be represented in the exercises by the 3rd Infantry Division under the command of General Holder. This was the same unit which fought in Korea, Vietnam, Angola and Somalia. Our military men will learn nothing good from these chastisers;
- Ecologists have stated that it would be better if, instead of American soldiers, American experts would come here and conduct a complete independent expert evaluation at the Totsk proving ground of the consequences of previously conducted tests of chemical weapons and the nuclear blast of 1954. They do not trust domestic experts;
- The exercises are necessary for a handful of military men, who would have something to gain from this in a personal plane (being stationed abroad, additional monetary means), yet it would be more important to deal with the problems of improving the living conditions of military servicemen and building housing.

We must add that, at the direction of Gazprom [Ministry of the Gas Industry], 10 underground nuclear explosions have been conducted on the territory of the Orenburg region for peaceful purposes. Out of five sites where they were conducted, three have become unsealed, and part of the territory has been subjected to radiation contamination. The authorities are keeping quiet about this.

According to the data of the State Duma Committee on Ecology, in Orenburg Oblast, due to radioactive irradiation, the cancer rate is 2.5 times higher than in the most

oncologically unfavorable regions of the country. The quality of the drinking water in the oblast is one of the lowest in the country. Aside from Totsk, the cities of Orsk, Novotroitsk and Mednogorsk are considered to be ecological disaster zones. In the words of the representative of the ecology party, the experts of the oblast administration's Commission on Protection of Natural Resources do not know how many purification structures there are at Orenburg enterprises. Nor, obviously, do they know about their technical condition. However, the authorities prefer not to expand on all of this.

I believe that, in the situation which has arisen, it would be more prudent not to hold the joint Russian-American command-staff exercises at the Totsk proving ground. If possible, they should be held in some other place, but only after thoroughly weighing all the "pros" and "cons."

It is much more important for the State Duma deputies to keep their promise to hold hearings in the committees and commissions, to get to the bottom of all the consequences of the tests of chemical and nuclear weapons which were conducted at the Totsk proving ground, and to develop a legislative document which would provide the victims with legal, material and moral aid similar to that which is currently being extended to the victims of the Chernobyl and Semipalatinsk catastrophes.

POLICY

Cutbacks in Military Publications Deplored

MM1508095594 Moscow NOVAYA

YEZHEDNEVNAYA GAZETA in Russian 12 Aug 94
pp 1, 2

[Article by Vitaliy Isachenko under the "Military Secret" rubric: "Interdict, Reduce, Destroy.... Defense Minister's Entourage Completes Defeat of Army Press"]

[Text] Yelena Apagova, press secretary to the Russian Federation defense minister, and Vladimir Kosarev, chief of the Russian Federation Defense Ministry Information and Press Directorate, can be congratulated on a full and definitive victory. The unprecedented action to destroy the military press system on the pretext of reforming it is close to completion. The military reader, and indeed the civilian reader, is left with KRASNAYA ZVEZDA, which has always been famous for the fact that it has reflected and will continue to reflect the official Defense Ministry position, and the military journals, which are loyal to the military leadership. The publications which boldly and sometimes even audaciously showed the dismal fate of the Russian Army today and the paltry fruits of its reform have disappeared at a stroke: the journals ARMIYA, ARGUMENT, and SOBESEDNIK VOINA, and the weekly newspaper SYN OTECHESTVA. Whereas the unification of specific journals into the ARMEYSKIY SBORNIK under the aegis of the General Staff can be just about justified as

economically expedient, the argument in favor of eliminating the above journals (there is no money) seems highly dubious.

First of all, by today's standards they had fair-sized print runs and needed minimum subsidies. Second, it is high time to sort out how the Defense Ministry budget is spent. It is not the military press that is to blame for the fact that they cannot make ends meet.

A great multitude of newspapers and journals were published in the enormous Soviet Army. There was the all-powerful USSR Armed Forces Main Political Directorate. That Directorate had a seven-man section headed by a general that ran all of the military press... Only the names remain of some of the publications. So what? Has the directorate's apparatus been halved? You must be joking. An entire directorate is now running the meager remains of the military publications! It is headed by Major-General Vladimir Kosarev, a man without any military education, an ardent journalist in the recent past. And he is a major general only for the moment. His official category is lieutenant general. The Chief of the Information and Press Directorate has such a high salary that many division commanders could envy him. Kosarev has a deputy, a Major-General, on his T/O. The post is vacant at the moment. As for who will get it—see below. The Directorate has eight sections (let us recall one again: The poor old Main Political Directorate of the USSR Armed Forces only had one). Each section has colonels in charge, and colonels under their control. And then there is a group of reviewers, headed by Yuriy Mamchur. If you count all the advisers, assistants, and secretaries, then this is a substantial array.

In the sick Army organism, officials for information and officials for press multiply at a fantastic rate, and they present a picture of turbulent activity through slight movements. But there are also the real fruits of their activity. The public sometimes finds out in amazement that the reforms in the Russian Federation are proceeding according to plan, that hazing is gradually dying out, and that there is no opposition to Pavel Grachev in the General Staff. But if somewhere soldiers periodically shoot their fellows, then what is there to be surprised about? The times are like that. Sick society, sick army.

Regrettably enough, there will be even less real information now. To put it in the language of Information and Press Directorate officials, following the cutting of ARMIYA, ARGUMENT, and SYN OTECHESTVA, the information sphere for the Russian reader, particularly the military reader, has been very greatly narrowed down. After all, they had a total print run of over 100,000 copies. There were far more readers than that, because companies, battalions, and regiments would subscribe to these publications. In other words, Yelena Apagova and Vladimir Kosarev have done the defense minister a disservice. On the other hand they have proved their worth—they have acted in the spirit of the

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times. If something works well, they you should definitely improve it, reform it, reorganize it, and ultimately ruin it.

Although it must be said that Kosarev and Agapova are inconsistent even in this question. Yes, this is precisely what has happened with the military press. At a personal level, though, everything is different. They had beautiful apartments in Moscow. They changed them. They moved to elegant ones on the Rublevskoye Highway. So judge now whether the Army community can find out from the chief of the Information and Press Directorate any objective information about providing housing for servicemen or at least some honest information about the observance of order of priority in the distribution of apartments in Moscow. And what are the utterances made by Grachev's press secretary on socially significant questions worth, if she so unashamedly enjoys the opportunities that have opened up?

Incidentally, journalists from the central newspapers of a democratic hue, which do not feel any particular affection for the made-to-measure military journalist, were the first to understand what was what. KOMSOMOLSKAYA PRAVDA, NOVAYA YEZHEDNEVNAYA GAZETA, SEGODNYA, and MOSKOVSKIY KOMSOMOLETS showed convincingly the minuses of reforming the military press in that particular way. Irrefutable facts were cited. How did the Information and Press Directorate react to this?

Well, it did not react at all. Except with the usual refrain that it was all nonsense.

Let us try to look into the future. What is the military reader going to be offered after the reform? The mountain, that is, the Information and Press Directorate, has given birth to a mouse. A journal with the strange name ORIENTIR has been established. According to the testimony of officers from the troops, the strongest pressure is already being exerted at the top to make sure that subscriptions for it are organized in the localities. How can you help remembering the fairly recent times: "Every communist should subscribe to the PRAVDA and KRASNAYA ZVEZDA newspapers and the KOMMUNIST VOORUZHENNYKH SIL journal." The traditions of the USSR Armed Forces Main Political Directorate can be traced both in the attempt to reanimate KOMMUNIST VOORUZHENNYKH SIL and in the cadre policy. Colonel Nikolay Yefimov, a former political worker and former reviewer for Dmitriy Volkogonov, has been appointed chief editor of ORIENTIR. One of his deputies is Colonel Mikhail Gorbylev, who has never showed his worth in journalism but over a period of many years meticulously filled out party bureau protocols. Another deputy, Nikolay Antonov, is more famous through the connection with his father, the well-known general in the Air Force.

Cadre reshuffles are possible in other posts. Not so long ago Kosarev's subordinates tried to rock the chair occupied by Aleksandr Yakubovskiy, chief of the military

television and radio broadcasting company, accusing him of incompetence and nepotism. According to certain reports, Yakubovskiy's (do not confuse him with Dima) general's post was needed for a former member of the USSR Armed Forces Main Political Directorate who was returning from the Western Group of Forces, Colonel Nikolay Ryazanov. However, this colonel has such powerful connections that he will most likely secure a generalship for himself. It is entirely possible that he will get the vacant post of Kosarev's deputy.

...So, the defeat of the military press is complete. The victory of Agapova and Kosarev over the democratic wing in military journalism, it must be admitted, was entirely inevitable. Publications which were democratic in spirit and patriotic in content could not survive in a situation where they were being ruled in a strictly Army-like way: Interdict, reduce, destroy....

GROUND TROOPS

Hazards Faced During Mine Clearing Operations in Caucasus

941 M05204 Moscow KRASNAYA ZVEZDA in Russian
23 Jul 94 pp 1-3

[Article by Col Adam Nizhalovskiy, deputy chief of staff of Engineer Troops of the Russian Federation's Ministry of Defense: "A Double Land Mine in a Minefield"]

[Text] The combat engineer battalion returned to the Moscow-area settlement of Nakhabino by the same route on which it had set out to perform the mission: the 140-kilometer route from Gali to Gudauta; from there on military transport aircraft. The pilots scarcely recognized the fellows whom they had delivered to Abkhazia 10 days before. Their faces were tanned and they were more mature. The most important thing, though, was a sense of having performed their soldierly duty. They were met by their own garrison. Met with a band. Women and children tossed flowers at the vehicles. And there were tears of joy. The main joy was from the fact they had all returned alive....

KRASNAYA ZVEZDA has already reported that engineer troops had arrived in the zone of the Georgian-Abkhazian even before the introduction of Russian peace-keeping forces. They reconnoitered and removed mines from the areas in which the future subunits would be located. They used fortification equipment to lay out routes of movement, positions and areas of deployment for traffic-control points and posts.

One can already sum up the initial results of the work performed and arrive at certain conclusions.

An operations group was set up for the missions and to oversee the engineer subunits. This was headed by Col-Gen Vladimir Kuznetsov, chief of Engineer Troops of the Russian Federation's Ministry of Defense. The group took over engineer troops arriving by air and rail from

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Nakhabino and from the Leningrad and North Caucasus military districts. A combat-engineer battalion from the Moscow area found itself in the most difficult position. It was in the formation stage, and the personnel had only begun the scheduled exercises. The best methods experts/instructors, cols Mikhail Firsov and Aleksandr Dmitriyenko and its col Nikolay Salamakhin and Valeriy Dyachenko, were enlisted to conduct exercises with the personnel.

The minister of defense of the Russian Federation issued a brief but stringent order that not a single soldier was to be blown up by a mine. In order to assure this every area, every building, every post... was checked out by combined-arm subunits without cover several days prior to the introduction of peacekeeping forces. During the period 18-27 July around 500 antitank and antipersonnel mines, artillery shells and other explosives were detected and destroyed. Around 20 kilometers of barbed-wire fence and more than 500 warning sign were set up.

One memorable case occurred near a destroyed railway bridge across the Inguri near the settlement of Tagiloni. Mines had to be cleared from a sector which airborne troops were to occupy the following day.

According to the Abkhazian combat engineers an antipersonnel minefield had been laid there. The decision was made to sweep the area with a BMP-2 mine-clearing vehicle. The mission was assigned to Sr Lt Valeriy Bendyug, commander of the BMP, Pvt Aldar Belzhiyev, mechanic/driver, and Pvt Nikolay Kopytin, operator. The combat work began, but the anticipated explosions of antipersonnel mines beneath the sweep just did not occur. And then, unexpectedly, a powerful blast took place, which scattered heavy sections of the minesweeper over dozens of meters. The combat vehicle came to a halt in the cloud of smoke, and communication with the crew was severed. The tortured silence seemed to last an eternity. The smoke dissipated, and we could see the destroyed sweep, its frame sunk into the soil. We immediately understood that the explosion had equalled a charge of 20 kilograms of TNT. But how did such an antipersonnel landmine come to be in a minefield?

The answer was provided slightly later by one of the Abkhazian soldiers guarding the railway bridge. It turned out that they had specially laid ("as a greater deterrent") several TM-57 antitank mines in this minefield, not in the ordinary way, however, but in pairs, one on top of the other. And our minesweeper encountered one such "surprise," not expecting such a powerful blast.

In the meantime, the hatch of the BMP-2 commander opened, and we saw Sr Lt Bendyug and then the other crew members. Deafened by the blast, they did not hear our orders, but they understood that they should remain within the armor in the minefield and wait for help.

Sr Sgt Vladimir Stepanenko and a dog from the mine-search service called Tsilli were the first to come to the

crew's aid. The latter rapidly detected several antipersonnel and antitank mines, the locations of which were designated by the driver with small red flags. Maneuvering among the flags, Sr Sgt Stepanenko led the minesweeper's crew from the minefield to a safe place. The crew commanded by Jr Sgt Yury Zubilin then went to work. It cleared a path to the combat vehicle by means of mine detectors and feelers, and provided for its evacuation.

This is precisely how the combat engineers performed, interacting closely and using all means of reconnaissance, including dogs from the mine-search service. Unfortunately, some of the mass media distort the situation in order to sensationalize it, writing that dogs are another thing in short supply in the mine-search service. This is not true. There are enough dogs, their training continues, and we are satisfied with them.

The combat engineer's work has always been difficult and dangerous. In the Abkhazian situation it is made even worse, however, by the fact that the mines were laid by nonspecialists who did not observe the existing rules. Not all types of mine detectors functioned reliably due to the presence of stones containing iron in the soil, which indicated mines where there were none. This distracted attention and reduced confidence in the reliability of the mine detectors.

The mining of roads by sabotage groups was a source of special alarm. Civilians and vehicles were blown up practically every week. And this is still occurring. Just the sight of a road pockmarked with craters from explosions and littered with buses, ambulances and burned passenger cars evokes apprehension even in veteran combat engineers. The decision was made jointly with Maj Gen Vasily Yakushev, commander of the peacekeeping forces, to have specially created mobile groups of scouts and mineclearing personnel accompany the columns of the Russian subunits.

Parallel with the reconnaissance and mineclearing of the area, work proceeded on the fortification of traffic-control points and posts. This mission is ordinarily performed by combined-arms subunits. The conditions dictated something else, however. The airborne troops newly arriving at the posts had to have trenches from the very beginning for all-around defense and shelter for the personnel.

A specific feature of setting up the fortifications consisted in the fact that the sites where the fortifications were to be built were checked twice for mines and unexploded artillery shells: before the work was started and following the removal of 30-40 centimeters of topsoil. The top layer of packed gravel and large stones presented the greatest difficulty. Powerful excavators literally "gnawed" their way into the stoney ground. Below it was solid, dry clay, which was not much easier to work. Under these conditions, in 30-degree heat and under cover of their own armored personnel carriers, the combat engineers erected single and double trenches.

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squad positions, trenches for tanks, airborne combat vehicles and armored personnel carriers, covered trenches and ditches. There was little time to perform this job and they had to work practically all the daylight hours, 16-18 hours a day. Fatigue rapidly developed, lips cracked, faces became sunburned, and thirst from the heat and humidity tortured the men. Not a single soldier flinched, though, and the mission was completed. We calculated that four areas for the concentration of peacekeeping forces and 27 posts and checkpoints were erected in a 10-day period, with 365 main fortification installations built and 9,400 cubic meters of soil removed. Whoever in his lifetime has ever set up even one ditch for standing fire under those conditions will understand the extent and the difficulty of the mission performed by the combat engineers.

The engineer support for the operations of the peacekeeping forces in the area of the Georgian-Abkhazian conflict, the lessons learned and the conclusions drawn will have to be summarized and understood. It is already clear, however, that urgent steps have to be taken to improve the T/O of the combat engineer subunits in the situation of limited personnel strength for the engineer troops and the low manning level. Despite the financial difficulties, we need new and improved equipment for reconnoitering and mineclearing.

In the meantime the combat engineer companies from the Leningrad and North Caucasus continue to stand their watch in the area of the Georgian-Abkhazian conflict. The intensity and the responsibility of their work has not been reduced at all. They are performing reconnaissance and mineclearing of the area, improving the fortification equipment of the posts and traffic control posts, escorting columns of peacekeeping forces over the terrible postwar roads of Abkhazia....

AIR, AIR DEFENSE FORCES

Survey of Russian Air-to-Air Guided Missiles

94UM0369C Warsaw NOWA TECHNIKA
WOJSKOWA in Polish Nos 2-3, Feb-Mar 94 pp 31-35

[Article by Piotr Butowski]

[Text]

At the end of the nineteen fifties Artyom Mikoyan's and Mikhail Gurevich's team had themselves built the long-range (so rated at that time) K-9 missile, also called the K-155. Its prototype was displayed publicly in 1991 under an E-152A plane, but the missile was not certified as a combat weapon. In the West it was called AA-4 Awl.

The K-15 missile (Object 275 and 275A) with homing by a radar beam was developed by Semion Lavochnik's team for their "250" long-range interceptor fighter aircraft (the system being called La-250K-15). Work on the "275" was not completed, just as was not the work on the

successor "277" missile with a semiactive radar self-homing system. In the second half of the nineteen fifties S. Lavochnik was extraordinarily busy, but construction of the La-250K-15 system was not on top of his list of projects. Priority had been assigned to his two other missiles: V-350 Burva [Storm] strategic wing missile and V-300 antiaircraft missile for Moscow's defense system. After Lavochnik had died in 1960 his team disbanded and was only in 1965 reestablished, but for entirely different purpose: distant-outer-space research.

The heretofore unknown air-to-air guided missile was built by Pavel Sukhov's team. This one, called the R-38, was intended for their T-37 fighter-interceptor aircraft. Its aerodynamic design was a classical one, similar to that of the R-4 (K-80).

Several years later the situation stabilized and of at least six teams engaging in air-to-air missile development only two teams of specialists remained "on the battlefield": Matus Bisnovat's team and Ivan Toropov's team. Work on only two of the aforementioned first-generation missiles was continued, on the K-5 (already out of the hands of D. Tomaszewicz's team) and M. Bisnovat's K-8. The improved version K-8M was in 1961 certified as a combat weapon (designated by ordnance as the R-8M, such a dualism applies to all Soviet air-to-air missiles, the letter K referring to Engineering Office and the letter R referring to Air Force). This missile worked together with the Oriol [Eagle] radar set.

Subsequent modifications of the K-8 missile have lead to the K-8M (R-8M), more widely known as the K-98 or R-98). It was equipped with a semiactive radar homing head, which enabled it to attack airborne targets not only from behind but also, for the first time in the USSR, head on. The first interceptor-fighter system including an R-98 missile was the Su-15-98 aircraft, this missile also being used on Yak-28P aircraft together with the Oriol-D radar set and later on Su-15TM aircraft with the Tajfun [Typhoon]-M radar set.

In 1973 production of the R-98 missile was changed to production of its last modification R-98M (K-8M), one with greater firing capabilities and a higher interference immunity. All these missiles were produced in two variants, with radar guidance (suffix R) and an infrared guidance (suffix T) respectively. Their training version was the UR-8M, constructed in 1966. In the West all missiles of the K-8 family are called AA-3 Anab. The R-98M missile is still a part of the combat equipment carried by the Su-15TM aircraft.

In 1959 M. Bisnovat's team began working on the K-80 missile (Object 36), later called the R-4. It was intended specially for the Tu-128S-4 interception system consisting of a Tu-128 long-range interceptor fighter aircraft, a Smerch [Tornado] on-board radar set (that is what the letter S stands for), and R-4 missiles (that is what digit 4 stands for). Two versions of the R-4 missile were developed: the R-4R using a semiactive radar set with a PARG-10-88 homing head and the R-4T using an

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infrared apparatus with a T-80NM head. Besides the Tu-128, only Mikoyan's E-152M experimental aircraft carried R-4 missiles.

The R-4 missile was series-produced since 1963, but with many reservations (just as concerning the Smerch radar set). In 1973, therefore, was begun production of its improved K-80M (R-4TM and R-4RM variants) for the Tu-128S-4M system (Tu-128M aircraft, Smerch-M radar set, and R-4M missile). In the West the K-80 missile and its modifications are called AA-5 Ash. Several years ago the R-4 missile was ultimately withdrawn from ordnance along with last Tu-128 aircraft units.

A breakthrough event affecting development of Soviet air-to-air missiles took place on 24 September 1958, when the Chinese acquired an American AIM-9B Sidewinder missile. Fired from a Taiwanese F-86 Sabre aircraft, it got stuck without exploding in the hull of a MiG-17 aircraft which belonged to the People's Republic of China. The missile was sent to Toropov's engineering office to be copied. The outcome was the K-13, for a long time the most popular Soviet air-to-air missile.

The Sidewinder had many features very valuable to the Russians. First of all, they learned here about the modular structure so much more easily handled in production and in operation. They were stunned by the simplicity of the AIM-9, considering that the first Soviet missiles in this class were very complex. Its steering and in-flight stabilization system was excellent. The infrared-guided self-homing head contained a free-running gyroscope and was much smaller than the Soviet counterparts.

It was Gennadiy Sokolovskiy, now chief engineer at the Vympel team, who said that most importantly, "the Sidewinder missile was to us a university offering a course in missile construction technology which has upgraded our engineering education and updated our approach to production of future missiles." On the basis of this experience, "it was possible to resolve such problems as after several years deciding whether or not to also copy the AIM-7 Sparrow missile and to decide against it, because our designs were considered to be technically superior to the AIM-9 Sparrow design."

In 1960 series-production of the K-13 missile (also called R-3 or Object 310, AA-2 Atoll in the NATO code) began. In 1962 the R-3S (K13A or Object 310) came into existence, the first version was used in large numbers. Its homing operation took much more time (22 s instead of 11 s). The Russians quickly stepped ahead of the original Sidewinder model, making in it a dozen or more modifications. In 1961 came into existence the high-altitude K-13R (R-3R or Object 320) with a semiactive radar head, recommended for combat aircraft in 1966. Its training versions were the R-3U missiles ("uchebnaya", barrel with a homing set, not fired from an aircraft) and the R-3P ("prakticheskaya" differing from the combat version only by absence of an explosive charge). As a

flying target for them served the RM-3V (RM denoting "raketa-mishen" [target-missile]).

In January 1960 it was decided to use the homing head of the K-13 missile in K-5 and K-8 missiles as well, and to thus devise a missile for tactical air combat. In 1962 M. Bisnovat's OKB-4 Special Engineering Office was testing K-88 missiles, smaller than the K-8 and with a K-13 head. The K-88 was relegated to the prototype status.

As a weapon was instead certified the R-55 (K-55, Object 67), a modification of the K-5 missile. The R-55 was series-produced throughout the 1967-77 period and quite widely used on planes of those years. Because at that time the Almaz team had already not any more been working on air-to-air missiles, the task of developing the K-55 missile was assigned to the engineering office which had been set up at the Kaliningrad (Moscow Oblast) Series Production Plant then under the direction of Ye. Korolev. This plant was producing aircraft weapons (artillery turrets for M-4 bomber aircraft, sights, etc.), then in 1955 began series production of the first K-5 and K-8 guided air-to-air missiles. Developing the K-55 missile was the first task ever assigned to this team alone (and the only one concerning air-to-air missiles in the history of this team). Now this engineering office in Kaliningrad, under the name Zvezda, is the leading Russian creator of strategic guided air-to-ground missiles.

During the 1966-1968 period the names of armament makers in the USSR were changed. Among others, also the two teams working on air-to-air missiles were renamed. Since then M. Bisnovat's OKB-4 team is called Molniya and Andrey Lyapin's (who replaced Ivan Toropov in 1961) team is called Vympel. These two teams were working primarily but not only on air-to-air guided missiles. The Molniya team also developed, among others, the Ch-29 strategic air-to-ground missile and both teams have already built units for the antiaircraft missile systems.

The 3M9 antiaircraft missile for the Kub [Cube] set broke the career of Ivan Ivanovich Toporov, founder of the OKB-134 Special Engineering Office. The missile was designed on the basis of precepts which had not been experimentally verified so that it became necessary not only to build such a missile but also at the same time to conduct pertinent basic research. During their first tests launch, which were begun in 1961, the 3M9 missiles disintegrated in the air. The consequent avalanche of aerodynamic, engine, and steering problems compelled Toporov to ask the Ministry of Armaments to extend the deadline for submitting the 3M9 to governmental tests. Toporov, not having an easy time to deal with character and using rough language in his talks with the minister, was removed from his post of chief engineer at the end of August 1961 and replaced by Andrey Lyapinov as director of the team. This did not accelerate the work on the 3M9, but finally in 1966 the missile together with all

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the Kub equipment was certified as a weapon and then turned out to be one of the most successful Russian anti-aircraft missiles. In the meantime Ivan Toporov, after leaving the OKB-134 Special Engineering Office, became department chairman at the Moscow Institute of Aviation.

During the second half of the nineteen sixties the Vypel team began working on the K-13M (R-13M, Object 380) modification of the K-13 missile, which was subsequently in 1973 certified as a weapon. It has a cooled homing head, a radio rather than optical closing-in igniter, and a more potent warhead. Analogous modifications of the R-55 resulted in the R-55M missile. The last version of the K-13 is the R-13M1 with a different shape of the steering apparatus. The K-13 missile was produced in China as the PL-2 (updated versions PL-3 and PL-5) and also in Romania as the A-91.

Since the beginning of 1962 M. Bisnovat's team was working on the new long-range R-40 (K-40) missile commissioned specially for the MiG-25-40 high-altitude interception system (MiG-25 aircraft with Smerch-A radar set and R-40 missiles). Although the R-40 is merely insignificantly larger than its R-4 predecessor, its range is over three times larger. This missile was produced in two variants: R-40R (Object RD46 with PARG-12 head) and R-40T (Object TG-46).

After the high-jacking of a MiG-25P to Japan on 6 September 1976, a thorough redesign of that aircraft was undertaken in the USSR and the MiG-25PD came into existence as a result. First of all the interception system was replaced, then also the radar set and the missiles. Instead of a Smerch-A, a Sapfir-25 radar was installed. The new missile R-40D and its R-40D1 update ("dorabotanaya" [more elaborate]) produced in two variants R-40RD and R-40TD, both featuring a higher interference immunity and a more sensitive homing head so that they can better cope with flying targets covered from the ground. The R-40D1 missile was developed by the Vypel team, the Molniya team having at that time been assigned to a different task so that it had to gradually withdraw from development of aircraft missiles. In the West the R-40 is called AA-6 Acrid. In the USSR it is still included among the weapons of MiG-25 and MiG-31 aircraft. Its production was discontinued in 1991. In the middle nineteen sixties was begun work on the next (third) generation of fighter jet aircraft, which resulted in the MiG-23. It was especially for this aircraft that the Vypel team developed the K-23 intermediate-range missile. Although the first units of the K-23 missile were tested simultaneously with the first prototypes of the MiG-23 aircraft, this missile was only later in 1973 certified as a weapon: for the MiG-23M aircraft.

Like all the other missiles, the R-23 comes in two variants: R-23R (Object 340) with radar guidance and R-23T (Object 360) with infrared guidance. There is also the training version R-23UT. The R-23 is used on earlier

versions of the MiG-23 plane. The later MiG-23ML and MiG-23MLD versions of this aircraft carry the R-24 missile, a modification of the R-23 with improved characteristic and most importantly a wider 50 km rather than 35 km range. In its external appearance this missile is very similar to its predecessor. For actual use it is available in two variants: R-24R (Object 140) and R-24T (Object 160). In the West both the R-23 and the R-24 go under the same name AA-7 Apex. The R-23 is produced in Romania, under license, as the A-911.

In 1968 an American AIM-7M Sparrow landed in the USSR, this missile being similar to the R-23 class of missiles just then being tested. The Vypel team was assigned the task of copying the Sparrow under the name K-25. Several copies of this missile were then launched on a trial basis, but ultimately the Soviet's own R-23 missile was sent to production. Work on the K-25 was completed in 1971. Gennadiy Sokolovskiy's expressed his view in saying that "our R-23 and then R-24 missiles were superior to the K-25 in not only versatility and range but also interference immunity, signal processing logic, and other characteristics." Nevertheless, some conclusions drawn from analysis of the Sparrow missile design were helpful in later work on the R-27 missile: on its hydraulically driven closed-loop servomechanisms and aerodynamic system with movable wings.

During the initial period air-to-air missiles in the USSR were developed for combat against bomber aircraft and reconnaissance aircraft, which has led to the concept of an "interception system" combining the aircraft with its homing-toward-target apparatus, its on-board radar set, and its missile. Only toward the end of the nineteen sixties did M. Bisnovat's Molniya team begin working on the first missile for tactical air combat, the K-60 (R-60, Object 62), with infrared self-guidance. Series production of this missile was begun in 1973, this R-60 missile then being certified as a weapon for all types of Soviet combat aircraft.

The R-60 missile may not be regarded as the immediate successor to the K-13. It is an unusually small missile, weighing half as much as the lightest Western missiles. In conformance with its size, also its combat payload is small (the warhead weighs barely 3.5 kg). The R-60 on shock aircraft (MiG-27, Su-24, Su-25) thus plays rather the role of a self-defense missile and on fighter aircraft (MiG-23, MiG-25, Su-15) it is occasionally used as a supplementary one called "pocket" missile.

A unique feature in the history of the R-60 missile is its unusually short development time. Hardly four years passed from the beginning of its design to the beginning of its production, while the development process of Soviet air-to-air missiles takes typically 8-9 years. Such a fast development was made possible by the availability of a wealth of experimental data on the K-13 missile. No new research was done for the R-60 missile, whatever was available just having been put together.

A further development of the R-60 are the R-60M missile and its export variant R-60MK. Its training

version is the UZR-60. In the West the R-60 missile and its modifications are called AA-8 Aphid.

Russian Tu-160 and T-4 Bombers Profiled

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WOJSKOWA in Polish No 1, Jan 94 pp 13-16, 29-30

[Article by Piotr Butowski]

[Translation] **Russian Supersonic Strategic Bombers, Part 2** before the Tu-160, T-4

Closing down V. Myasishchev's OKB-23 and P. Tsybin's OKB-256 Special Engineering Offices did not mean the end of Russian heavy bombers. Also Andrey Tupolev, the patriarch of Soviet aviation, was working on strategic aircraft. Nikita Khrushchev just did not have enough courage and strength to directly and openly challenge him. So another way was found, one not as straightforward but leading to the desired result: a contest was announced for the job of developing a strategic aircraft, a contest meant to be won not by Tupolev but by somebody else. That other engineer in charge would already not have to be so highly regarded. At the turn of the nineteen fifties Tupolev's team was about completing the design of its supersonic strategic bomber "135" (Tu-135), an aircraft with a takeoff mass of 205 tons and a cruising speed of 2200 km/h. It resembled V. Myasishchev's M-56 and also possibly the XB-70 Valkyrie, had a "duck" configuration with a delta wing, and was propelled by four pairwise pack mounted NK-6 (Nikolay Kuznetsov) engines delivering a thrust force of 22,500 kgf (several years later this project resulted in the Tu-144 passenger plane).

Having these facts available, the Ministry of Aircraft Industry invited competitive proposals of an aircraft for similar tasks but with different characteristics. Piotr Dementyev, chairman of the State Committee for Aviation Engineering and executor of N. Khrushchev's plan, foresaw that Tupolev's team will try to push through its already finished "135" design rather than prepare a new one and will thus make it easier for the Committee to reject that existing design for its not meeting the specifications.

The new aircraft specifications were, of course, not arbitrarily arrived at. They had been prepared by the Scientific Research Institute of Aviation Systems in Moscow, following an analysis of all the missions the aircraft was to perform. The basic mission was to strike sites from where nonstrategic offensive weapons were aiming at the USSR, and thus mainly American aircraft carriers. An attack on aircraft carriers was to be carried out from beyond the new aircraft's air defense system. The range of the aircraft was, accordingly, specified to be 2000 km. To this was added a 1500 km range of the missile which the aircraft was to carry as its weapon. Considering the necessary response time, the specifications for the new aircraft were a Mach 3.0 maximum speed and a Mach 2.8 cruising speed.

Three engineering offices participated in the contest: Andrey Tupolev's OKB-156, Pavel Sukhoi's OKB-51, and Aleksandr Yakovlev's OKB-115. Tupolev presented his "135" design. Yakovlev had prepared his design of an all-steel aircraft Yak-33. It had a fuselage-above-wing configuration with classical tail plane and delta wing, and with the engines underneath the latter. At the same time two teams working on engines proposed theirs: Sergey Tumanskiy's its R-15 (then built for the MiG-25 aircraft) and Piotr Kolesov's its RD36-41 (the latter having won the engine contest). On the Ch-45 antiship missile was working Aleksandr Berezhnyak's team.

The first blueprints of the T-4 aircraft were drawn up by Aleksandr Polyakov on Pavel Sukhoi's team in December 1961. Immediately afterwards Oleg Samoylovich became project engineer and in spring 1962 Naum Chernyakov was appointed chief engineer. Because T-4 was the secret name of this aircraft, in unclassified correspondence it was referred to as Product 100. The reason for calling it so was that the first version of the aircraft designed by O. Samoylovich weighed 100 tons.

In spring 1962 the project evaluating Commission met for the first time to consider aircraft designs "135", Yak-33, and T-4. Tupolev's first design was presented not by him but rather by Sergey Yezer representing Tupolev's Special Engineering Office. As expected, the basic aim of his lecture was to demonstrate that the problem had been incorrectly defined. He showed that little would be gained in time at an enormous cost by increasing the speed of the "135" aircraft from Mach 2 to Mach 3. He proceeded to enumerate in detail all the functions this aircraft was to perform, indicated what equipment it would require, and concluded that, like it or not, the aircraft would have to weigh 200 tons. Yakovlev and Sukhoi personally presented their respective Yak-33 and TU-4 designs. The conference ended with reports on the status of engines and weapons for this aircraft.

The next conference was held several weeks later, this time for a summation. Tupolev, aware that the "135" would not be accepted, proposed a new design already meeting the latest specifications: a two-engine "125" aircraft weighing 130 tons, cruising at a speed of Mach 3.0, and having a range of 6000 km. Following presentations by representatives of the evaluating agencies (TsAGI [Central Institute of Aerohydrodynamics], military institutions, A.O.), development of the new aircraft was entrusted to Sukhoi's team while work on the "135" was discontinued.

This, however, did not guarantee a future for the T-4. Piotr Dementyev then summoned Pavel Sukhoi and said: "The Negro has done his job, the Negro can leave." But now Sukhoi, whose design the Commission had chosen, began requesting funds needed for development of the aircraft. His team was at that time not only heavily engaged in work on the two Su-11 (T-47) and Su-15

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(T-58) fighter interceptor aircraft and on modifications of the Su-7 but also started working on the Su-24 (T-6). Taking this into consideration, plans were made to enlarge Sukhoy's Special Engineering Office by adding Lavochnik's engineering office for design and construction of the T-4. The final decision was, however, to totally transfer Lavochnik's team to rocket technology and to attach that team to Vladimir Cholomey's OKB-52 Special Engineering Office. Building the T-4 was entrusted to the Series Production Plant 82 in Tushino (Moscow).

Search for the optimum aircraft construction had begun. The first variant developed was an aircraft with the classical "duck" configuration, with a delta wing, a tail plane, and four paired pack mounted engines. This design was promptly rejected, because of the high drag. From today's perspective, most promising would have been the third variant with an integral structure. Work on this variant was indeed in a far advanced stage and a full-scale prototype was already built in July 1962. However, this variant was not approved by the TsAGI people. The reason for their opposition to it was difficulty of ensuring stable air intake during high-speed flight (it was a pocket intake, as in the F-105 Thunder Chief but a vertical one). The aircraft had a "duck" configuration and a delta wing with a different slant (larger slant angle at the airframe). The shape of the "100" aircraft wing was being refined on the Su-9 model, the resulting wing modifications being labeled 100L. Eight modifications (100L-1...100L-8) were tested during the 1967-69 period.

Most attention was paid to the aerodynamic lift during supersonic flight. Attempts to decrease it were made on the assumption that the margin of longitudinal stability should be close to zero during subsonic flight and not exceed 5 % during flight at Mach 3.0 speed. Upon reaching the speed of sound, however, the stability margin had actually increased by 12-14 %. A solution to this problem was sought in a new way of moving the foreplane, but all efforts to ensure repeatability of its movements after intense heating and subsequent cooling were unsuccessful.

When the engineers realized that the "duck" configuration would not do, they proceeded to analyze the tailless configuration. During ascent, however, the elevons of such an aircraft must be rotated upward and its wing thus loses carrying capacity so that not enough torque is available for lifting off the front wheel. Serious consideration was given to the RD36-35 variant with two engines for ascent duty mounted vertically behind the cockpit.

Exactly then appeared the first pictures of the XB-70 Valkyrie. The structure of this aircraft was based on the tailless concept, with the foreplane in a horizontal position. Such a structure differs from the "duck" in that here the tail plane serves only as a trimmer for balancing the ailerons and for rotating the elevons downward,

which facilitates lifting off the front wheel. The structure of the T-4 in turn differs from that of the B-70 by having a movable front stabilizer, the B-70 having one which has swinging flaps but is otherwise stationary.

This still did not solve the problem of excessive stability. Neither was it possible to lower it sufficiently by shifting the pressure center during supersonic flight. It was instead necessary to shift the center of gravity, and this was done by rolling the fuel containers during flight.

A novel concept was a cockpit with no flight visibility, guidance of the aircraft being based solely on the readings of instruments (the similar nose of the Tu-144 did not entirely obstruct the forward view). Only during takeoff and landing was the nose lowered so as to enable the pilot to see the ground.

The thirty third and final version of the aircraft was finally approved. This was followed by the Government's decision to get a thorough design and construction of the aircraft started. The engineers were given five years to complete the project. This was not much time, considering that the T-4 was a "100 % risk" aircraft. No existing parts were used, everything had to be designed from scratch: weapons as well as equipment, engines, and deck furnishings.

In order to satisfy the high flight speed requirement, it was necessary to use titanium as the basic structural material. Most important was mastery of the automatic welding of titanium alloys, a most advanced technology in the world. Special synthetic materials were developed, even new grades of rubber. It was also necessary to build highly efficient cooling systems. The engines would run only on a special fuel, the thermally stable RG-1. Most innovations, however, were introduced in the aircraft steering system.

Model studies revealed that with a nonrigid airframe (slenderness ratio 22!, length 44 m and average diameter 2 m) the mechanical steering system would operate in a nonlinear mode. For some time a solution to this problem was sought in refinement of that mechanical system, a whole set of cablets having been designed to operate under tension at intermediate points and thus compensate the effect of deformations of the hull. Such a device was, however, becoming too complex and unreliable to be approved as a basic solution to that problem. After much debating, Sukhoy decided to do something never done before in the whole world and use an active steering, the fly-by-wire system, for the T-4 aircraft. It was installed on four T-4 prototypes, a mechanical emergency steering system being additionally installed on the first prototype but already not on the second one.

The T-4 thus became the first aircraft in the world to have been built with an active steering system, the fly-by-wire system. Before this aircraft only experimental laboratories were flying thus, laboratories built by alteration of existing earlier aircraft: F-4 Phantom and F-8

Crusader in the U.S.A., 100LDU modification of the Su-7U fighter-bomber in the USSR.

The engines were also controlled by a wire system, aided by a computer. Its unique feature was related to the characteristic of aircraft landing. In order to minimize the landing speed, it is necessary that an aircraft touch down at a large angle of attack. With an only L/D= 2 slenderness ratio of the wing, the induced drag was increasing so much that the thrust force of the engines had to be boosted rather than reduced during landing. An automatic thrust control mechanism was, therefore, included in the engine control system. During landing this device actually increased the thrust force of the engine even when the pilot was, by force of habit, pulling out the thrust lever.

The "100" aircraft had weapons and equipment at that time considered far out in the USSR. It had an astroinertial navigation system which indicated to the pilot on map the aircraft's true position in space. The aircraft was armed with two Ch-45 Molniya winged antiship missiles having a 1500 km range, each propelled by a powder-fuel engine and carrying not only a self-homing head activated for the final flight segment but also a ricocheting combat head. These missiles were guided by a powerful radar set mounted in the nose of the aircraft. Lateral observation was done with both infrared imaging as well as radar sets installed along with a photographic camera for reconnaissance duty. Inasmuch as the operations were highly automated, the crew of the missile carrier consisted of only two pilots sitting one behind the other in the narrow cockpit.

The first built prototype "101" of the "100" aircraft was not yet the final version. Although P. Kolesov's RD36-41 engines were ready on time, the other equipment and the weapons was not yet complete. This "101" was for the first time flown on 22 September 1972, by pilot Vladimir Ilyushin and navigator N.A. Alfeyev from the Zhukovskiy airfield of the Flight Test Institute in Ramenskoye near Moscow.

No problems were encountered during flight of the first aircraft. No tests were conducted, the real purpose being to study the performance of its basic systems. The T-4 exceeded the speed of sound up to Mach 1.75 twice and its performance fully validated its calculated characteristics.

The second T-4 prototype "102" stood in a hangar of the Tushino Plant ready to fly. Its first flight was scheduled to take place in 1976. Next door was being completed construction of the third prototype "103", but neither of these two prototypes was actually flown. Even the "101" prototype did not fly much, no further tests having been conducted on it after its tenth flight in October 1974. The aircraft was left grounded on the Institute's airfield in Ramenskoye and after many years, in 1982, sent to the Monino Museum.

In 1975 Pavel Sukhoy decided to discontinue work on the T-4. Although Nikita Khrushchev had been removed

from power in October 1964, after that the basic attitude toward the T-4 aircraft never changed. The aircraft lived through swings of support and disapproval by government agencies, this being the real reason for Sukhoy's decision. Truthfully, such an attitude toward the T-4 was quite justified. Such an aircraft was not needed. Its tasks could be just as successfully performed by more conventional and less problematic ones such as, for instance, the simultaneously built "145" (Tu-145) better known under its serial name Tu-22M Backfire. Thus Sukhoy's "Setka" remained known in the history of aviation as a very fine experimental aircraft.

In 1967, a few years after the "Khrushchev interlude", the matter of a heavy strategic aircraft was brought up again. Some inspiration came from work done in by the Americans. In 1965 the U.S.A. had formulated requirements regarding a new AMSA (Advanced Manned Strategic Aircraft), the future B-1.

In 1967 a contest was announced in the USSR for the job of developing an intercontinental long-range attack-and-reprisal aircraft. It was to have three standard ranges. It was to attack strategic objects with four Ch-45 missiles while flying at high altitude at a speed of either 3000 km/h (range 7500 km) or 900 km/h (range 11,000 km). When used for penetrating the enemy's air defense system, it was to fly at about the speed of sound close above the ground and to carry twenty four CH-2000 short-range air-to-ground missiles. As alternative weapons for it were to be developed new types of conventional and cluster bombs weighing 45 tons per set.

At first only two teams participated in this contest: Pavel Sukhoy's Special Engineering Office and the specially for this purpose reinstated Vladimir Myasishchev's Special Engineering Office. The preliminary search for a concept took a long time. This first stage of the contest was concluded in 1970, Sukhoy's proposal having been judged to be the better one. At that time Myasishchev's team was in a very difficult situation and, after a long inactivity, had actually just reorganized its staff.

In preparation for the new project, Sukhoy's team started with the medium attack aircraft T-4 (Product 100) already under construction (its first flight took place in September 1972). The optimum solution for a heavy long-range aircraft is a wing having a variable geometry. On this premise, the engineers on Sukhoy's team at first simply took the T-4 and replaced its delta wing with such one. However, further studies revealed many drawbacks of such an aircraft construction. First of all, it was necessary to substantially increase both its size and mass. Secondly, the pack mounting of engines did not leave enough room inside the fuselage for a sufficiently large weapons compartment. Furthermore, the long movable parts of the wing could not be made as stiff as required.

It was for this reason that the engineers began seeking entirely new solutions and the next design made in 1969-70, although called the T-4MS, had very little in

common with the original T-4. For unclassified correspondence it was given the name Product 200, referring to its mass of 200 tons. The search had led to development of an integral structure with a band wing. An integral structure refers to an aircraft built as one body, with a smooth transition from airframe to wing. Its entire surface was made up of airfoil profiles, with only the engine cabins and the nose for the crew attached to it. Such a structure offers many advantages, among them excellent aerodynamic characteristics and a large fuselage space available for accommodating fuel and equipment.

The fuselage of the T-4MS consisted of a middle body and movable wing tips. The middle body had a slenderness ratio of 0.5, a relative thickness of 0.06, and an aerodynamic twist which minimized the lift during flight at a speed of 3000 km/h. The movable part of the wing, with a relative thickness of 0.11 at the middle body and 0.07 at the ends, could be set at a slant angle from 30° to 72°. Tests of T-4MS models in the TsAGI wind tunnel revealed a high aerodynamic excellence index: 17.5 at Mach 0.8 speed and 7.3 at Mach 3.0 speed. The aircraft was to be propelled by four K-101 engines delivering a thrust force of 20 tons. Their special feature was variable two-staging.

The author (Piotr Butowski) is not exactly clear about the subsequent events in the strategic bomber contest. In any case, the T-4MS design was tabled (apparently due to heavy involvement of Sukhoi's Special Engineering Office with the Su-27 priority project and other tactical aircraft). In 1970 the contest was entered by A. Tupolev's team. The work proceeded slowly due mainly to vacillations by the Air Force, which in fact did not know for sure whether it wanted such an aircraft. Moreover, the disarmament talks with the Americans were in progress and a possible reduction of strategic aircraft was being considered.

In 1975 the contest between Myasishchev's M-18 design resembling the B-1 in appearance and Tupolev's Tu-160 was finally decided in favor of the former, but the order was placed with Tupolev (by the way, several years later Myasishchev's team prepared its next design M-20 and this one, too, was tabled). The reasons for this decision are still not clear. According to one version offered by Myasishchev's Special Engineering Office, its inadequate production base was the reason. Its joining the work on the Soviet space ship Buran in 1976 may possibly also have influenced that decision.

Characteristics of Sukhoi's T-4 "100" Aircraft

Assignment: Supersonic attack-and-reconnaissance aircraft. **Crew:** Pilot and weapons system operator in common cockpit one behind the other. **Propulsion system:** Four RD36-41 Kolesov engines delivering a thrust force of 156.9 kN (16,000 kgf) each. **Armament:** Two Ch-45 Berezhnyak Molniya missiles with 1500 km range, nuclear bombs and conventional bomb on outriggers. Maximum combined carrying capacity 20,000 kg.

Dimensions: Length 44.5 m, span 21.7 m, height 11.195 m, bearing surface 295.7 m², spread between wheels of main undercarriage 5.9 m, undercarriage base 9.8 m. **Masses:** Own mass 55,600 kg, normal takeoff mass 114,400 kg, maximum takeoff including extra containers 135,000 kg. **Design goals (calculated values):** Maximum speed 3200 km/h, cruising speed 3000 km/h, low-altitude cruising speed 1100 km/h, practice ceiling 23,000 m, range at cruising speed (3000 km/h) without extra containers 4000 km, maximum range 7000 km, takeoff run 1200 m, approach run 1500 m.

Characteristics of Sukhoi's T-4MS "200" Aircraft: calculated values

Assignment: Supersonic intercontinental bomber and missile carrier. **Crew:** two pilots and one navigator also acting as weapons system in common cockpit in nose of aircraft. **Propulsion system:** Four K-101 double-flow turbojet engines with variable flow distribution delivering a thrust force of 196.1 kN (20,000 kgf each). **Armament:** Basic intercontinental variant carried two Ch-45 missiles inside bomb compartment. Two more missiles of this type could be suspended outside between engine cabins. Air defense penetration variant carried twenty four Ch-2000 short-range antiradar missiles. Maximum combined carrying capacity 45,000 kg. **Dimensions:** Length 41.2 m, maximum span 40.8 m, height 8.0 m, bearing surface 506.5 m², spread between wheels of main undercarriage 6.0 m, undercarriage base 12.0 m. **Masses:** normal takeoff mass 170,000 kg. **Design goals:** Maximum speed 3200 km/h, maximum low-altitude speed 1100 km/h, practice ceiling 24,000 m, range at 3000 km/h speed 7500 km, maximum range 11,000 km, takeoff run 1100 m, approach run 950 km.

K-37 Aircraft Ejection Seat

94UM0535A Moscow KRASNAYA ZVEZDA in Russian
5 Aug 94 p 2

[Article by Vladislav Runov: "K-37 for the 'Black Shark'"]

[Text] In the issue for Sep 24, 1993, under the "Arsenal" heading, an article was published on the K-36 ejection chair developed at the "Zvezda" Scientific Production Enterprise. Today we are going to talk about a new development of this company, the K-37 ejection system.

Says senior designer Vyacheslav Dobryin, "This system was made in accordance with the technical specifications of the Air Force and is intended for operation on low-speed aircraft. The Ka-50 "Black Shark" helicopter became the first serially produced aircraft on which it was installed. In combination with the protective equipment and the oxygen gear, the K-37 allows normal work of the pilot during standard flight, and ejection from the helicopter in an emergency situation at speeds up to 350 km/h and in an altitude range up to 6,000 m, in practically all flight modes, including at zero velocity and altitude, as well as when the helicopter is moving backward."

The K-37 rocket and parachute system consists of the chair with the relative trajectory unit, the parachute system PS-37A, and the onboard portion.

The original design of the chair and the drag racket engine assures stable motion of the pilot in the process of ejection. The chair remains in the aircraft.

A flexible combination of system elements makes it possible to place the drag engine in the most convenient spot on the aircraft, and to separate the trajectories of several crew members catapulting simultaneously.

The system can be triggered in the forced or independent ejection mode. In the first case, when an emergency situation develops, it is necessary for the pilot to pull on the handholds on the catapult chair. All subsequent actions of the system are automatic. A device is activated that pulls on the pilot and forms the posture for catapulting. At the same time the system that shoots off the blades is triggered, and a top opening appears in the cockpit ejection. Then the rocket motor is fired off. After the line is pulled, the motor started and pulls the pilot from the cockpit. After completing its function, the motor separates and the parachute is triggered.

In the independent bail-out mode, the parachute system and the pulling mechanism are separated from the chair. The pilot leaves the helicopter under his own power, by the "over-the-side" method.

State testing of the K-37 rocket and parachute system demonstrated its high reliability. More than 80 test ejections were conducted in all possible modes from ground units, and 6 from a flying laboratory. For courage and heroism demonstrated during testing of equipment for emergency ejection from the helicopter, the senior engineer-parachutist and tester of the "Zvezda" Scientific Production Enterprise, Sergey Pereslavytsev, was awarded the title of Hero of the Russian Federation, and navigator-test pilot of the flight-testing institute im. M. Gromov, Valeriy Argonov, received the Order "For Personal Courage." The developers of the system received state awards.

Basic Characteristics of the K-37 (variant for the Ka-50)

Range of safe ejection speeds, km/h	from minus 90 to 350
Range of altitudes, m	0-6000
Minimal altitude of safe ejection, m	
-horizontal flight	0
-inverted flight	35
-inverted flight in dive mode	180

NAVAL FORCES

Special Commission Advocated for Studying Navy's Problems

944F1204A Moscow NEZAVISIMAYA GAZETA
in Russian 3 Aug 94 p 6

[Article by Capt 1st Rank (Res) Albert Khrapovich under the rubric "Opinion": "The Russian Fleet Suffers From Eyewash: It Is Time To Put an End to This Sickness"]

[Text] During the past 25 years and more the U.S. naval forces have not lost a single submarine. During that same period we have lost at least five: a K-8 sank in the Atlantic in 1970; a K-8 broke up into pieces and the nuclear reactor (damaged) was flooded near Novaya Zemlya in 1982; a K-429 sank twice, was brought to the surface and was put out of action once and for all in 1986; K-219 was lost in the Atlantic in 1986; the K-278 Komsomolets suffered a disaster in 1989. In addition to these accidents with the nuclear power plant's a K-116 (1979), a K-314 (1985), a K-56 and many others have suffered major accidents, with loss of life.

Officials of the Navy and those who for whatever reason echo them usually attempt to somehow hush up these facts. Whenever the talk turns to the facts, they cite statistics demonstrating that many accidents and incidents also occur "there," in the U.S. Navy. They cite impressive (especially to the uninitiated) figures indicating a drop in the accident rate in our navy (ordinarily over the past 5-6 years), asserting that if things were bad, it was in the past. Each time they "forget" to mention that the Americans are just not losing their submarines and that each temporary "improvement" of ours is followed by another disaster, and it then turns out that not all of the causes have been totally eliminated.

Just how does one explain the difference in the number of submarines lost? Perhaps theirs are that much better?

There are differences in technologies and in the quality of manufacture, of course. In the area we are considering, however, (we are not referring to acoustics, noise level, weapons and so forth here), the differences are not so great that they can account for everything. Furthermore, our double-hull submarines (compared with their single-hull and one-and-a-half-hull boats) are not only equally durable but also have almost twice the buoyancy, as an example, of the American boats.

If the design and technical components are all at approximately the same level, all else depends upon the selection, the training and the practical processing of the submarine crews.

Following the loss of two of their nuclear-powered submarines in the '60s, the Americans thoroughly studied all of the possible causes of the disasters, calculated all of the options and took additional steps. This is what they have done in this respect as of right now:

- made corresponding material and technical efforts to improve service and living conditions for the submariners, which has enabled them to make the difficult job attractive and prestigious; the crews are now composed entirely of volunteer professionals on a competitive basis, with rigid screening;
- made it mandatory for every submarine to have two equally qualified crews; calculations and, most important, experience, have shown that economizing on the

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number of crews (when there is one crew for each two or three submarines and not one for each), leads to depersonalization of the receiving, the transfer and operation of the submarines, and this means inevitable accidents and breakdowns, with serious consequences;

- any diversion of crew members from their combat work and service is ruled out; upon taking over a submarine, a single crew prepares it completely for going to sea and performs combat patrol; the other crew, after turning over the submarine, undergoes preventive medical processing, takes leave, is replenished with personnel and begins exercises and training on simulators which completely emulate their submarine, weapons and equipment; when the submarine returns to base, the two crews switch places;
- military industry turns over to the fleet a system of basing and of material and technical support fully ready for action, including a training center and submarine repair shops;
- a special U.S. Naval Safety Center has been set up; I could talk about it for a long time, but I shall only cite a few excerpts from the list of its assigned missions: "...Assists the Navy's Chief of Staff in preventing situations conducive to accidents and establishes safety measures and the monitoring of their observance... gathers and assesses information... works out recommendations for maintaining the highest level of combat readiness..." and so forth; among other things the center cooperates with "other state and private agencies involved in preventing (!) disasters";
- a magazine is issued at the Navy's expense, which describes in detail and analyses all emergencies and incidents involving the equipment and weapons to acquaint all those involved so as to prevent such in the future.

And what about us? Unfortunately, a comparison does not favor us. Any Russian submariner can tell you that there is practically no special screening of personnel, that the training in training detachments and schools for warrant officers and even the general military schools is such that it is not even worth discussing, that the submariners have to make many things themselves instead of engaging in their combat training. If there is a simulator base, then it is on a primitive, so to speak, homemade level because it is made by the hands—albeit, golden hands—of the instructors and teachers at the training centers....

So do the Navy's command element and the administration in the Ministry of Defense know nothing about this?

Yes, they do. Otherwise, they would not be worth a penny as professionals. In any case, whether or not they want to know everything, from time to time they receive reports on the actual situation from people interested in more than just their personal careers. How they react to

these is another matter. I have some interesting examples of this. I shall cite only one.

In 1988, by some miracle, M.S. Gorbachev became general secretary of the CPSU Central Committee. With all that mentioned above, plus deficiencies in weapons, acoustics and so forth, which lead to a lagging behind the "likely enemy." One has to give credit to Mikhail Sergeyevich. A thoroughly civilian individual, even though Supreme Commander in Chief of the Armed Forces, he immediately grasped the full importance of the problem and ordered "comrades Yazov, Chebrikov, Maslyukov and Zaykov thoroughly to delve into the situation and immediately take the steps necessary." Much to my surprise, however, I soon learned that the decision of the highest official in the state meant exactly nothing to certain individuals. Comrades Zaykov, Maslyukov and Chebrikov calmly thumbed their noses at him. Comrade Yazov alone summoned me for a talk. And even this, it turned out, was done so that Adm Chernavin, commander in chief of the Navy, and Arm Gen Shabanov, deputy minister of defense of the USSR, could explain to me in his presence (D. Yazov him-¹⁷ immediately admitted that he was not competent in naval affairs) how mistaken I was and how bad it was to take up people's time for some sort of investigation.

In an attempt to explain to the minister of defense why we lag so far behind the Americans, I cited, among other things, data on the fact that we have more nuclear-powered submarines than they, almost two and a half times as many, plus many diesel-powered submarines, which the Americans have not had for a long time (at that time we had 376, while they had something on the order of 115). Many of our boats, especially the diesels, are obsolete, they clog up the ship-repair plants, their repair is dragged out for years and is more expensive than the construction of a new submarine. It is not possible, of course, to man all of them with fully qualified crews, and particularly second crews. Richer than we are, the Americans could build more submarines than we, of course. They are not doing so, however. Their main funds are spent on providing total support for and preparation of existing submarines, on the search for new technologies, research in the field of acoustics and electronics, on reducing the noise level and so forth. If we were to remove all the obsolete units from the fleet, cut them up for scrap and sell the ships and submarines which have been waiting for repairs for years, we would have the funds to improve many things....

The response to this I will probably not forget for a long time. Adm V. Chernavin stated: "Why do we need this kind of 'economy'? We have sufficient funds. If we need more, we shall ask for it, and they will give us as much as we ask for. Is that not so?" he added, turning to the minister of defense. The latter nodded his head resolutely.

He who believes that this is a thing of the past is mistaken. Nothing of the kind. The situation in the navy

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continues to be difficult today. Even today, however, the leadership is prepared to assure us that the fleet is in a state of complete combat readiness. And Gen Grachev, minister of defense, is prepared to buy the Black Sea Fleet in its entirety, maintaining that he has the money for that. Submarines are colliding and depots are exploding, while we are assured that "everything is OK."

It is all a matter that there are people in the administration even today who have chosen the former system based entirely on sham and eyewash. They do what they can for the fleet, of course, within the limits of their power and capabilities (some of them do a great deal). One cannot take them entirely at their word, however. This is in great part due to the fact that they themselves sometimes do not know where lies the truth and where a lie, and where there is eyewash and "the ability to report" refined over a period of decades. If they are asked today, they will present many plans for increasing, intensifying, improving, with the notation "completed," to anyone (the president, the parliament, journalists). They will say without fail that 80 or more nuclear-powered submarines have been withdrawn from the navy as of today, but they will "forget" to say how many of them are left or what is the situation with respect to their support, weapons and so forth. They will certainly say that "the democrats" are not building new aircraft-carriers and are holding up pay and allowances, but they will say nothing about the backwardness or the noise level. And should any high official criticize the navy, he would use specific actual achievements in weapons and equipment (we always have these due to the talented people), exhibiting zeal and loyalty, saying things which will later be repeated with emotion: "You see, we can"! In no case will he ever say that as of today, for example, we are capable of fully outfitting and truly maintaining in a state of combat readiness no more than 60-70 submarines.

So what are we to do? It is not an easy matter to replace or restructure all of them at once, after all. This is why many people suggest that we should begin by setting up a special governmental (presidential or parliamentary, but best of all, a joint commission) commission to study the actual state of affairs in the fleet and work out proposals for its maintenance and use, its further development and construction. The composition of this commission consisting of independent naval (they always existed, of course, but were driven out) and civilians could be provided right now. Its functioning would not require special outlays. Many people are prepared to work for it without pay, if only they could restore the former power and glory of the Navy and halt the senseless death of people in peacetime.

Admiral Kasatonov Discusses Navy's Combat Readiness

OW1508080194 Moscow Russian Television and Dubl Networks in Russian 2303 GMT 30 Jul 94

[Interview with Admiral I.V. Kasatonov, first deputy commander-in-chief of the Russian Navy, by an unidentified correspondent; from the "Aty-Baty" program; time and place not given—recorded]

[Text] [Correspondent] The Navy is famous for its traditions. It has quite an ancient history and, of course, many people would be interested to know what, if anything, is being done in the Navy today to preserve and develop these traditions?

[Kasatonov] The question is, let us say, a very broad one. Broad in the sense that there is an immediate answer from the point of view that the state, specifically, the president and the government, are giving us significant assistance in this. The Russian Maritime Historical and Cultural Center, or the Maritime Center for short, was created by a presidential decision in 1992. I have been its director literally for several months now and we have been preparing everything connected with tradition and the organization of patriotic work for the Navy's 300th anniversary. It will be observed on 30 October 1996.

Our function is to raise everything to do with this work to the proper level, beginning with traditions and ending with symbolism and various historic forms. You could say we are doing this at the state level. The occasion will be marked appropriately and I would like to mention a few events. The first will be the naval parade in Leningrad ... [Kasatonov corrects himself] in St. Petersburg on 9 May. This will be the first time that we will be organizing something like this by government decision. Ships from all the navies will be invited, including representatives from the anti-Hitler coalition—the United States, Britain, and France—and a number of other countries.

There will also be a very big celebration on the Neva River in 1996 that will be attended not only by navy representatives, but also by representatives of the merchant marine, the river fleet, fishermen, the Academy of Sciences' fleet, and geologists. That is, it will be a real national holiday.

[Correspondent] Igor Vladimirovich, the Navy anniversary is approaching and naturally we are receiving a large amount of mail. It could be summed up in one question: Is the Russian Navy maintaining its combat readiness?

[Kasatonov] This is not a simple question. Undoubtedly, anything connected with naval activities is the Navy's prerogative. But I would answer you in this way: The Navy's tasks have been set down in corresponding documents by the defense minister; fleet tasks have been set by the Navy commander in chief. These tasks are being carried out. Since the changeover of personnel in June-July, after the arrival of graduates aboard ships, the fleet has preserved its combat readiness at a level allowing it to carry out and complete its tasks.

However, I would like to say that there are economic difficulties, difficulties connected with both the repair and docking of ships, and other things influencing the fleet's condition. This is true not only now but also in the future. By comparison, I spent more than five days in the Pacific Fleet where I observed the joint Russian-U.S. landing. There were equipment failures on both sides.

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On the other hand, activities in all spheres—in the air, on the sea, and on shore—deserve to be assessed positively. In this respect, I would say that the fleet is strengthening its combat readiness. We are engaged in maintaining this combat readiness to the best of our ability. Therefore, the Navy is solving its tasks on the seas. [video shows a fast patrol boat approaching, tying up to another vessel; Russian and U.S. crews greeting each other; bridge of a ship; navy ships, including a Slava-class cruiser, moored in port]

The fact that there are more than 10 people presently vying for every spot at our Nakhimov College speaks about the attraction and attitude toward the Navy. The fact that there are more than five people vying for every spot at our naval academies also speaks for itself.

[Correspondent] Recently, there has been talk about a decline in naval academy enrollments. Was that just a point in time or was it simply a rumor?

[Kasatonov] I am answering on behalf of the military educational institutions: It is true that the year before last and last year, competition for places at the colleges declined. Graduates were applying for discharges from the Navy upon completion of the course. Now there are only singular instances of such applications. All our naval academies have graduated excellent officers who are looking forward to serving on our ships and submarines with pleasure, and of course they are our foundation for the future.

[Correspondent] Is it because in some way you have corrected the day to day lives or improved the training of the officers? What has happened? Or has the general political situation changed?

[Kasatonov] I think that the state, primarily the government and the Defense Ministry, has changed its attitude toward school leavers and the manning of units, ships, and formations. First, we are now concluding contracts with students studying at our naval academies—this is already a very significant material thing. Officers who graduate from academies are also concluding contracts and naturally this also acts as a material benefit. A whole complex or package of laws has been adopted, including social and pension security. Some of the laws are still not quite fully worked out, however, all of our state organizations are occupied with these issues and everything is aimed at strengthening the army and fleet.

Of course on the one hand, all this demonstrates to the public that the state will demand a proper attitude to service responsibilities while, on the other, it demonstrates its concern for people. So this is the new standard that I think will continue to rise and that is, naturally, of primary concern in the armed forces.

[Correspondent] Igor Vladimirovich, has the naval officer changed compared to when you were a lieutenant or a captain- lieutenant, and what is he like now? I know

I am asking very general questions that everyone usually asks during jubilees, but nevertheless, what are the main differences?

[Kasatonov] The main difference of course is that, when we were junior officers, various ideological forms prevailed over us; there was the leading role [of the party] and so on. On the other hand, we were more prepared for life's collisions. We better understood various processes and associated more with people, namely sailors. The present generation of young officers has assimilated patriotism, the great historic heritage, and our naval traditions to an outstanding degree, and I consider that everything is normal in this respect. On the other hand of course, this generation is more materialistic and is more aloof from the enlisted masses. They concern themselves less with the sailors' needs and are more concerned with themselves. However, I consider it an excellent generation and a commander is always a commander. Knowing every one of his officers individually, a commander works on some aspect of his qualities. He knows where to intensify and where to lessen the work and where to give more independence. I think that this younger generation is technically literate, professionally and patriotically sound, and they are our worthy future.

I would like to see all those serving on ships, submarines, and shore units commended by their commanders. The commanders should congratulate them on merit. There should be ceremonial parades and flag raising ceremonies. Afterwards, as circumstances permit of course, they should meet with their near and dear ones so that once again they can see and hear how they are appreciated and understand the significance of their service and the utmost need for it. So, on behalf of the Navy command and the Naval Historical and Cultural Center, I want to congratulate everyone on the occasion of this anniversary and wish them all the best.

Adm Selivanov on Preparing for Winter Training Period

94UM0540A Moscow MORSKOY SBORNIK
in Russian No 6, Jun 94 pp 3-7

[Article by Admiral V. Selivanov, chief of Navy Main Staff: "Operational and Combat Training of Fleets in the Winter Training Period"]

[Text] Navy training in the winter training period was conducted in a difficult economic and political situation and under conditions of continuing reduction and reform of the Navy. Based on this, main efforts of the Navy Military Council and fleet command elements were aimed at preventing a drop in the level of actual combat readiness of fleet forces and at unconditionally fulfilling the plans outlined.

It is no secret that combat service and alert duty of ships is the highest form of maintaining combat readiness of fleet forces in today's peaceful time. Alert duty in base

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and combat patrol at sea in turn are the main components of combat service. Both naval strategic nuclear forces as well as general purpose forces perform it and perform missions at sea. Ships and submarines of these components do not simply sail around, as the mass media sometimes publicize, but perform a state mission of maintaining stability in sea and ocean waters and are a stabilizing factor in world politics.

The question may arise in people not connected with the Navy: Specifically how is this manifested? Above all, in the past half year Navy ships continued to master the World Ocean and to rehearse new missile submarine patrol tactics that considerably affect their concealment and the efficiency of command and control, and they also performed observation (position location and detection) of features of the activity of foreign naval groupings in sea zones and strategic ocean areas.

A new event for ships on combat service in this stage was their participation in foreign policy actions for stabilizing the peace in hotspot areas and their performance of specific missions. Thus, like last year, Navy ships took part this year in joint exercises with foreign navies. In particular, the Pacific Fleet large ASW ship Admiral Vinogradov took part in an exercise with the navies of India and Kuwait and the Northern Fleet patrol ship Legkiy took part in Exercise Pomor-94 with ships of navies of NATO countries.

Under the conditions at hand, maintaining the Navy's prescribed combat readiness above all requires a decisive revision of traditional approaches and a determination, development and realization of new ways, methods and organizational-technical measures for ensuring technical readiness of the Navy's ship order of battle. Special attention must be given here to ships being maintained as part of permanent readiness forces but which have limitations in use, individual problems with weapons and military equipment, and sometimes also problems with expired periods of operation between repairs. Under these conditions, staffs and maintenance and repair entities have to take maximum possible steps to restore the readiness of such ships and extend engine life and the service life of equipment installed in them. For this it is necessary to make full use of ship repair capabilities of large strategic formations (and formations) of ships, production facilities of industry, and servicing and maintenance services. I would like to stress especially that the presence of individual malfunctions on ships should not serve as a cause of negligence in their upkeep and of a disruption of the training rhythm of their crews. But it must be recognized that we still have omissions.

An analysis shows that the following are basic causes of shortcomings in matters of keeping forces in constant combat readiness:

- insufficient understanding by the command element and staffs of large strategic formations (formations) and units that under the present difficult conditions it

is necessary to strengthen their organizational and organizing role in matters of maintaining combat readiness, for which the flag officer commanding (commander) bears personal responsibility;

- absence of precise systems organization in the work of fleet staffs;
- insufficient exactingness by the command element and staffs in fulfilling plans for restoring combat readiness of ships and an absence on their part of real assistance to crews of ships undergoing repair;
- lack of objectivity in assessments of the status of individual ships, especially large surface ships, including in an assessment of capacities of enterprises repairing them, which led to a considerable increase in repair times for these ships;
- poor repair training and special training of personnel, resulting in more frequent instances of equipment failure and a lowered level of ship technical readiness.

Now more than ever before, the prescribed degree of ship combat readiness depends on the action of their technical support system. Unfortunately, we are placed in a critical position by conditions of sharply limited financing for maintaining ship technical readiness, while missions facing the fleets are unchanged. Under these conditions the main efforts of the Navy command and of fleet command elements were aimed at seeking new ways and methods of upgrading the technical support system. The main directions here were a search for nonbudgetary funds; an expansion in the proportion of enterprises that are drawn in that have a varying form of ownership; repair of ships, armament and military equipment according to the criterion of cost effectiveness; choice of priorities; rigidification of requirements on maintenance efficiency; introduction of various restrictions in planning repairs; decommissioning ships due to the economic inadvisability of continuing expenditures for their upkeep; and others.

There also are a number of organizational defects in the work of fleet staffs at all levels in addition to objective reasons substantially influencing the effectiveness of using the already limited amounts of Navy financing and affecting the assurance of technical readiness of Navy ships. One necessary condition for maintaining the prescribed combat readiness of Navy forces is a high strength level. This is a very acute question for us. Lately manpower acquisition for fleet ships and units has continued under conditions of a shortage of draft resources. As we know, the reduction in the strength level is caused by a decreasing number of draftees assigned to the Navy and by military commissariats' nonfulfillment of plans for supplying draftees. Under these conditions full, high-quality contract manpower acquisition acquires paramount importance for maintaining combat readiness of fleet forces. This will permit increasing the fleet strength level (on condition that military districts fulfill draft plans for the Navy). But this in turn will entail increased budgetary expenditures, especially in the initial stage.

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Everything said above must be taken into account in our activity, and above all we must cease to rest hopes on somebody else and proceed from the actual situation.

In comparison with the 1993 winter training period, during the past months there was a substantial increase in activeness and intensity of operational training and its quality rose. A large number of measures have been prepared and carried out in fleets in this respect. The main forms here were command and staff exercises and command and staff drills, where there was a rehearsal of practical command and control skills of the command element and staffs and questions of training command and control entities and forces for conducting combat operations both in large-scale wars as well as within the framework of local armed conflicts. The exercises and drills were held in accordance with specific conditions of regions and the military-political situation actually taking shape.

One feature of operational training measures of the winter training period was that we began rehearsing command and control entities in actions under emergency situations. Thus, in a joint staff drill of Navy central command and control entities held in these months, we managed to rehearse and study features of bringing in personnel and using equipment of Navy formations and units for participation in mopping up emergency situations of a natural and technogenic nature. The pertinence of conducting such a drill is confirmed by life itself. This is linked above all with a reduction in the overall level of discipline of security and order at dangerous industrial production units, by the accumulation of a large number of stockpiles of nuclear and chemical weapons, by human error in operating nuclear power plants and so on. Similar and other reasons led in recent years to an outbreak of major accidents and disasters accompanied by human victims and appreciable material damage. In addition to this, the insufficient training of a number of officials in directing actions of forces for localizing accidents and mopping up in their aftermath (especially in the initial stage) entailed serious consequences which could have been prevented or considerably reduced by having taken timely, effective steps.

Operational training was conducted in this direction. The Baltic Fleet is recognized as best based on results achieved during the winter training period.

With respect to combat training of Navy forces, it was conducted rather rhythmically and was distinguished by greater intensity than for the similar period of last year. Of course, the socio-economic situation in the country caused certain difficulties in this area as well, but the combat training plan for the winter training period still was fulfilled. Specific steps also were undertaken here. In particular, the Pacific Fleet successfully conducted an amphibious landing exercise after a three-year interruption. In these months integrated sorties by ships of several formations under the direction of command

elements of fleets and of large strategic formations became the main form of rehearsing forces at sea. Teams under the direction of the Navy command worked in all fleets, including the Black Sea Fleet, which contributed to an improved quality and level of organization of combat training. Best combat training results were achieved by large strategic formations and formations commanded by rear admirals V. Popov and Yu. Kirillov, major generals A. Borzenko and V. Romanenko, Captain 1st Rank Yu. Kostyrko and Colonel V. Levkin.

Under conditions of certain restrictions on use of armament and military equipment, difficulties in financing and logistic support of ships and units, and a shortage of personnel, the Navy command developed certain compensatory measures and new approaches in organizing combat training. We are persistently introducing nontraditional forms and methods of personnel training which permit ensuring stability of basic qualitative combat training indicators.

With consideration of the deficiencies of 1993, in 1994 the integrated approach became the main method for training forces to perform assigned missions and for organizing the entire process of combat training of fleet forces. Mutual support in performing individual and joint combat exercises was rehearsed in such ship sorties, and at the same time various Navy components rehearsed joint use of practice weapons. Such an approach permitted simultaneously accomplishing both the training of individual ships and their operating in company as part of task groups. Sorties by fleet forces for joint combat training were conducted under unified concepts and plans under the direction of commanders of fleets and large strategic formations. Performance of individual episodes of combat operations by formation forces was reduced to a minimum and parallel rehearsal of certain elements of ship-type training tasks by surface ships was planned to economize on material costs. This in turn permitted reducing overall time for rehearsing missions at sea. In addition, the number of preparatory combat exercises by permanent readiness ships was reduced.

On the whole, the system of training Navy forces in the winter training period was planned in such a way that main attention was given to base training of forces during January-February, and active operation by ships and flights by naval aviation began in March. The sequence itself for rehearsing missions at sea also was fulfilled by stages.

In the first stage demonstration sorties were conducted under the direction of fleet commanders and their deputies, where command personnel of large strategic formations and formations were the trainees. The main purpose of such activities is to teach strict, precise fulfillment of requirements of guidance documents and accident-free command and control of forces and ships.

In the second stage the bulk of the time was set aside for rehearsal of ships as part of task groups and units.

Thus, in March the first sortie by Northern Fleet ships for integrated combat training was directed by the CinC Navy personally. In this sortie command personnel and their staffs trained in practical matters of command and control under difficult situation conditions. In particular, several formations of surface ships and submarines, aircraft and helicopters were rehearsed, and over 30 live firings were fulfilled successfully.

But in this training period we were unable to accomplish fully all the missions facing us. An analysis of fulfillment of the winter combat training plan and also of results of inspections of fleet formations and units permitted concluding that unresolved problems and shortcomings arise basically in those formations and units and on those ships where the command element and staffs have been separated from their forces and from the personnel. Therefore it is necessary for fleet command elements to organize the work of all command and control levels in such a way as to have at least 50 percent of duty time allocated for immediate training of subordinate forces and for participation in all basic measures of their combat training and of the plan of the day.

Large strategic formations and formations commanded by Lieutenant General of Aviation N. Fadeyev; by rear admirals V. Fedorov, V. Prusakov and N. Kochergin; by Major General A. Otrakovskiy; and by captains 1st Rank V. Yashchuk, I. Bolshedvorskiy and A. Smelkov are behind in combat training.

Certain work was done in the winter training period to upgrade the organization and methodology of mobilization training. Main efforts here were concentrated on mastering specific functional duties during the mobilization and placement of subordinate units and subunits in combat readiness. Priority in officer training was given to active forms such as brief mobilization drills, practical classes and group exercises. The conclusion can be drawn based on results of the first half year that on the whole command and control entities and forces (troops) of fleets coped with mobilization training tasks. Directorates, formations and units whose commanders (chiefs) are Lieutenant General V. Proskurnin, Rear Admiral V. Lisovey, Major General A. Serov, captains 1st Rank S. Nikolayev, V. Grusha, F. Vinnik and I. Vdovin, colonels M. Chuyko and V. Poseshchaylo, and lieutenant colonels V. Solovyev and V. Polyakov are recognized as best.

At the same time there continue to be substantial shortcomings in the organization and methodology of mobilization training which lower the level of mobilization readiness of a number of formations and units. Their main cause is a violation of the basic principle that "each commander (chief) personally teaches his own subordinates and is responsible for their level of training." A similar thing is noted in formations and units whose commanders (chiefs) are Major General V. Safronov, Colonel A. Gulyy, captains 2nd Rank S. Lobazanov, G. Zhukovskiy, B. Vyshinskiy and A. Trofimov, and lieutenant colonels N. Dubovetskiy and V. Grishin.

There continues to be a rather high accident rate of ships and vessels in the winter training period. An analysis of the experience of their operation and of the main accidents breakdowns and malfunctions of equipment permits concluding that a large number of them occur because of a low level of special training of ship personnel. The main reasons for incidents and accidents also can be named: gross violations of maintenance instructions for armament and military equipment by officers at the primary level; violation of safety measures by officials in the performance of combat exercises; poor organization of duty aboard ships and in units; nonfulfillment of maintenance standards for armament and military equipment; and poor organization of loading and unloading operations involving weapons.

Thus, three instances of accidents already occurred in 1994 connected with ignition of unauthorized electrical equipment. The most serious was an instance of an auxiliary-steam line rupture aboard the aircraft-carrying ship Admiral Gorshkov, which led to human victims.

We have done far from everything for quality training of command and control entities. Thus, there was an instance in March where two Northern Fleet submarines brushed each other through their fault. A detailed investigation was conducted, but the work of preventing accidents of course does not end with this; its fulfillment is planned for the entire training period.

The Navy command also is very troubled by the upkeep of armament and equipment and the presence of its stores. The mass media already have written about the explosion of ammunition in the Pacific Fleet. Inspections and an analysis of the work of arsenals, bases and depots for missiles and ammunition show that problems of reducing volumes of stored weapons to prescribed norms, recycling excessive and above-norm missiles and ammunition, and removing from bases and depots dangerously explosive articles and above all ammunition being stored in categorized cities still are being resolved slowly. Despite steps being taken, the effectiveness of work being done in matters of upgrading fire and explosion safety and sheltering weapon stockpiles at arsenals, bases and depots has diminished in recent years.

The overall number of stolen weapons was cut 1.8 times as a result of work done to move small arms and strengthen security of their storage areas. At the same time, despite the general reduction an intolerable situation involving assurance of safekeeping of small arms and ammunition has taken shape in the Pacific and Black Sea fleets and in units of central subordination, where a large portion of stolen and lost weapons has not been found to the present time. Only 10 pieces have been stolen as a result of attacks on military units by criminals, while more than 60 were lost as a result of officials being deceived when weapons were turned over to criminals based on counterfeit documents.

Among the most important elements of Navy training in the winter training period was the task of an in-depth

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study and adoption of requirements of combined arms regulations, a fundamental improvement of troop service, assurance of appropriate conditions for servicemen's training, life and routine, and organization of reliable security of military installations

Unfortunately, despite steps being taken, these tasks failed to be accomplished along all the indicated directions

Deaths of servicemen remain inadmissibly high, with the situation in the Northern and Black Sea fleets especially alarming. The death of servicemen during off-duty time is growing. The main causes here are crashes and accidents of combat and motor transport equipment, belated training of personnel in safety requirements and poor supervision of their fulfillment. The work of some commanders in studying the state of subordinates' morale and health remains unsatisfactory. There continue to be instances of suicides and of death because of drug addiction.

The fleet continues to be agitated by such crimes as evasion of military service. Despite a drop in their overall number for the Navy as a whole, the acuteness of this problem has not abated and these crimes make up 45 percent of the overall number in the Navy, and the growth of crimes connected with evasions of military service failed to be stopped in the Pacific Fleet in 1994. The causes of this also are the impunity of persons evading military service, connivance on the part of individual commanders and chiefs, and also ineffective search actions for capturing deserters. In a number of cases, evasion of military service is caused by instances of oppression, mockery and humiliation of young soldiers, although a twofold drop in crimes connected with a violation of the rules of regulation mutual relationships was achieved for the Navy as a whole for the winter period.

The main causes of the serious situation with military discipline in the Navy are as follows:

- poor effectiveness of work by flag officers commanding, commanders, and staffs to introduce requirements of combined arms regulations and the "Korabelnyy ustav VMF" [Navy Shipboard Regulations] to the life of ships and units;
- poor personal execution of military command and control by officials at all levels, as a result of which the requirements of laws, regulations and orders remain unrealized;
- new approaches in matters of studying public opinion, mutual relations, traditions and the moral and mental state of military collectives are being mastered and developed slowly in entities for educational work;
- many commanders and chiefs at all levels and staffs do not display initiative and persistence in ensuring necessary everyday conditions for the personnel's life and work, and they show confusion and an inability to solve problems of providing servicemen with heat, water, clothing, food, medical services and all authorized allowances.

In this connection it is very important to revive and strengthen contact with local authorities and with veterans' and youth technical sport organizations to prepare the youth for Navy service. I would like to emphasize especially that the work of military-patriotic education of the youth and servicemen should be regarded as a most important and inalienable part of the official activity of all commanders and chiefs. It is necessary to make more productive use of capabilities of fleet cultural and leisure-time establishments. Russian history, Armed Forces history and heroic traditions of the Navy, whose tricentennial will be celebrated in two years, must become the ideological base of military-patriotic education under present conditions.

Summing up, the conclusion can be drawn that, on the whole, missions assigned to the Navy have been performed despite existing objective and subjective reasons.

Speaking of missions for the summer training period, it should be noted that their number and seriousness are great. In the course of planning combat training special attention should be given to the reality of plans and that the direction and content of combat training conforms to combat capabilities of Navy forces, to conditions ensuring safety of military service, and to prevention of the death of personnel.

As priority measures to increase the effectiveness of combat training and eliminate its shortcomings, it is recommended that fleet commanders establish personal responsibility of their subordinate officials for strict fulfillment of plans within prescribed time periods, and that they take the upkeep of large combatant ships and the rehearsal of their crews under personal supervision.

At the same time, in the work of staffs at all levels it is necessary to provide for greater demonstration measures, for introduction of provisions of regulations and Russian Federation Minister of Defense requirements on maintaining law and order and military discipline, and for introduction of requirements on organizing the safety of service and prevention of the personnel's death and injury.

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REAR SERVICES, SUPPORT ISSUES

Military's Role Seen To Ensure Status as Great Space Force

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1522 GMT 9 Aug 94

[By ITAR-TASS correspondent Viktor Gritsenko]

[Text] Moscow August 9—The main task of the Russian Military Space Forces is to help Russia maintain its status of a great space power, ITAR-TASS was told today

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at the Main Staff of the military space forces, which are part and parcel of the Russian armed forces for two years already. Their purpose is to ensure the interests of the Russian state in outer space.

Military-space crews are now launching space rockets from the cosmodromes of Plesetsk and Baykonur. Experts of the military-space forces are dependably controlling groups of orbital vehicles, which include about 180 military and civilian sputniks orbiting at altitudes ranging from 300 to 40,000 kilometres. The control of all these space objects is effected from Russian territory for the second year running. Moreover, the military-space forces are responsible for the development of various space complexes, for filling the orders of the Russian defence ministry, and for manufacturing dual-purpose equipment.

In other words, the military-space forces are, so to speak, an "enterprise" producing both military and civilian goods. The share of the latter amounts to approximately 40 per cent. Contracts are being signed with organisations wishing to have their own scientific and economic programmes. The latter are to pay for the military-space forces' work linked with the preparation, launching and control of civilian space vehicles. A part of the received money is being spent on social needs, primarily on the construction of housing for servicemen. A whole dwelling estate was recently built for this money in the city of Kaluga for retired officers of the Baykonur cosmodrome.

In light of the fact that the Russian economy is now living through a very difficult period and the state of the space industry is close to critical, the financing of the military-space forces is, as always, quite limited and has an obvious social tendency. Some 60 per cent of the money is being spent on salaries and on the upkeep of social infrastructures in military contingents.

Shortage of money puts a brake on scientific research, interferes with the timely repair of "ageing" space equipment. Purchases of space technology had to be cut, too.

But even despite these difficulties, the military space forces are working with an eye on the future.

Work to expand the potentialities of the Plesetsk cosmodrome and the creation of a new cosmodrome near the town of Svobodny, Amur region, are being carried on to ensure Russia's independent space policy.

The St. Petersburg military-engineering space academy named after Mozhaisky, the main higher educational establishment of the Russian military space forces, has already produced the second group of highly skilled graduates. There was no shortage of people wishing to enlist in it this year, too. But the main goal of all the efforts of the military space forces is to help Russia maintain its status of a great space power.

The numerically small, but intellectually powerful military-space forces are a prototype of one of the main

components of the highly mobile and compact Russian Army, capable of dependably guaranteeing the security of the Russian state.

Functions of Military Prosecutor's Office

MM1608140194 Moscow KRASNAYA ZVEZDA in Russian 16 Aug 94 p 2

[Interview with Major-General of Justice Gennadiy Sutormin, chief of the Information Analysis Department of the Russian Prosecutor's Office Main Administration for the Supervision of the Execution of Laws in the Russian Federation Armed Forces, by Oleg Getmanenko; date and place of interview not stated: "Army Actively Counters Crime; This Is Borne Out by Military Prosecutor's Office Figures"—first paragraph is introduction]

[Text] In the dying echo of the once noisy calls for the "demilitarization" of the military prosecutor's office the incomprehensibility of its opponents' arguments is now particularly clear. The role of military lawyers in maintaining law and order in the armed forces is now too obvious. Today even those who have little acquaintance with the specific features of army work and the intricate fabric of mutual relations in military collectives find it hard to dispute it. And the potential and high qualifications of prosecuting and investigation cadres of the military prosecutor's office are borne out if only by the fact that over the past six months they have detected 98 percent of crimes. The overall crime picture cannot be put together without considering the complex phenomena of public life which directly affect the functioning of the armed forces and the law enforcement organs. That is the subject of our correspondent's talk with Justice Major General Gennadiy Sutormin, chief of the information analysis department of the Russian Prosecutor's Office main administration for the supervision of the execution of laws in the Russian Federation Armed Forces.

[Sutormin] The crime level or to be more precise the crime index in the armed forces today is a little over three times lower than throughout the country as a whole. Major General Sutormin noted at the start of our talk.

It is something else that gives rise to serious concern—the appearance of new factors which have radically altered the ordinary crime picture in the Army and Navy. For many years military crimes predominated. But now general crimes are increasingly coming to the fore, including thefts, muggings, robberies, particularly large-scale embezzlements, malicious hooliganism, and premeditated murders.... The investigators admit that some of the cases they investigate destroy old ideas of daring, cynicism, and cruelty.

As a whole about half the law violations committed are connected with avoidance of military service, one quarter are selfish crimes, and one sixth are violent crimes.

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The army organism reacts sensitively to the changes in the socioeconomic structure, including the ugly phenomena which accompany, for instance, the redistribution of property. They are reaching the army with no particular delay albeit in a muted, sometimes rather altered form. For instance, two years ago there was talk of isolated instances of large-scale embezzlement. Now 127 cases have been recorded in the first half of this year.

[Getmanenko] Can one speak of the existence in the army of special risk zones on which the attention of the law enforcement organs should primarily be focused?

[Sutormin] Analysis shows that the most serious crime situation takes shape in units on special services and performing combat tasks in conflict zones. For an explanation we must resort to the concept of related background phenomena. In other words, the "on-switch" here is the overall situation requiring the utmost exertion and the lengthy concentration of all efforts. Tragedy is often played out against the background of harsh conditions of service, a hostile entourage, and other factors which, taken together, can lead to breakdown.

Another observation will, I fear, not be to the liking of parents, who believe that their son's place of service should be as close as the school where he studied. Alas, the following law can be seen: Servicemen serving close to home are often put off, and criminally put off, by proximity to home.

[Getmanenko] And what can we say to parents whose imagination draws pictures of barracks life each more terrible than the last?

[Sutormin] Of course there is little "reassurance" but statistics attest that in barracks and on the territory of the military unit there are fewer crimes than two or three years ago. Here it is not only a question of strict control on the part of commanders. It is paradoxical, but the adversities which have befallen a man in uniform also become a cohesive factor. It is a case of the solidarity of people in an equally difficult position engaged in drudgery. Outside the military unit the restraining effect of these moral commitments is weakened. And as a result servicemen illegally absent from their units committed 651 crimes this year. It must be said that civilians' provocative outbursts based on some kind of morbid indifference in society's attitude toward what was once its favorite child are giving rise to a very sharp and often inappropriate response. Actually, that is the entire spectrum of crimes committed by servicemen outside the military unit: either a "reply" to someone who has insulted them or contact with criminal elements with the ensuing consequences.

[Getmanenko] The solution of qualitatively new tasks which the times are setting is obviously seriously complicated by the acute nature of the cadres question—as far as I know as of today not a single one of the military prosecutor's officers of the districts, fleets, and groups of troops is fully staffed....

[Sutormin] The cadres situation taking shape is indeed critical. We have never encountered such understaffing—every four investigator's post is vacant. And, unfortunately, it is not the worst specialists who are leaving the military prosecutor's office. They are joining the territorial prosecutor's offices, and banking and commercial structures. Why? To some extent the overall decline in the prestige of military work has had an effect. Another reason is that the military investigator and prosecutor now receive less than any official in the law enforcement organs.

But I stress that the material aspect is not the main thing—the military investigator and prosecutor never worked for large salaries. Many of those who have gone would agree to work with their existing level of remuneration. The overwhelming loss of specialists observed a year ago was caused primarily by the lack of certainty and prospects and the protracted quest for a role and place for the military prosecutor's office in the armed forces as they are being reformed.

The situation has now been stabilized. Percentage bonuses have been introduced for proficiency rating levels and it was recently decided to pay salary bonuses for special working conditions for the military prosecutor's office prosecution and investigation officials.

But above all a good legislative base is needed. One can cite foreign experience and the history of the country's prosecutor's office: All the special issues connected with the organization of prosecutor's office oversight under army conditions, with staffing, with military service, and with material and material-technical backup for the military prosecutor's office's activity must be regulated by law. By a law on the military-prosecutor's office or a statute introduced by an edict of the Russian Federation president. Drafts of the law and the statute have been prepared by the Russian Federation General Prosecutor's Office main administration for the supervision of the execution of laws in the armed forces. In the last resort these questions should be approved in a separate block in the law "on the Russian Federation Prosecutor's Office"—in its present form it does not even mention the military prosecutor's office organs. We hope that the implementation of the provisions of the military law reform whose concept has now been submitted for discussion will help to make clear the place and role of

the military prosecutor's office and to enhance the status of its officials.

[Getmanenko] What tasks are now coming to the fore?

[Sutormin] It is essential to pool the efforts of commanders, educational structures, and military law enforcement organ in the struggle against crime with the coordinating role going to the military prosecutor's office. At some stage the coordination of actions was lost. Every structure individually did a lot but we were proceeding along parallel courses. Recently under the leadership of Valentin Panichev there was a conference in which representatives of the Defense Ministry central apparatus and the internal troops, border troops, and other ministries and departments with military formations took part. The conference discussed ways of implementing the federal program to step up the struggle against crime. A coordination plan was elaborated in accordance with which work is being started. In September we plan to sum up its first results.

PEACEKEEPING FORCES

Khorog Border Detachment Prevents Pyandzh River Crossing

94UM0539B Moscow KRASNAYA ZVEZDA
in Russian 3 Aug 94 p 2

[Article by Anatoliy Prokopyev: "Attempts To Break Through the Border Continue: Towards Us in the South, Away From Us in the North"]

[Text] Border Troops of the Russian Federation (Anatoliy Prokopyev). On July 31, resolute actions by service members of the Khorog Border Detachment of the Group of Russian Border Troops in Tajikistan foiled another attempted crossing of the Pyandzh River by fighters in the sector of the 12th Border *Zastava*. According to available data, the crossers received fire support from up to a hundred opposition soldiers. Days earlier, on July 30, the border troops of the Sortaval Border Detachment (Northwestern Border District) were called out in response to an alarm signal. They detained four Rumanian citizens who were trying to cross illegally into Finland.

INTERREGIONAL MILITARY ISSUES

Russia Ready To 'Protect Russians' in Chechnya

94UM0538B Moscow KRASNAYA ZVEZDA
in Russian 2 Aug 94 pp 1,3

[Article by Oleg Odnokolenko: "Situation in Chechnya Out of Control. Russia Intends To Protect Russians"]

[Text] At one time Chechnya knew how to "carry off" sovereignty perhaps better than any other subject of the Russian Federation (RF). Even Russian troops left that region a lot more swiftly than the Baltic States, and without any negotiations they left behind almost all their weapons. Since then, frankly, hardly anyone has doubted the independence of this government, which has not looked to official Moscow for a long time. Indeed, the leader of the Chechen Republic, a former a major-general of the Russian Air Force Dzhokar Dudayev, who intrepidly switched from a seat in a strategic bomber to the presidential chair, bears little resemblance to the other leaders of the North Caucasus, who today are sitting in Russian representative governmental organizations. But then this quality has always been noted in mutual relations between Moscow and Grozny. Relying on the particular mentality of the Chechens and promising prosperity from the oil industry, Dudayev immediately made it understood that he would not tolerate Russian influence, and in the event this happens he threatened to "set the Caucasus on fire".

Probably in the era of the "parade of the sovereignties" such an unfolding of events was completely possible as soon as federal laws were withdrawn from local use, and Grozny was in essence turned into an independent political force in the Caucasus region. Moscow, ignoring the permanent barbs in the mass media tried not to notice Chechnya for a time. What is more, apparently Russia simply did not have the actual information concerning the situation in the formerly fraternal republic. One can suppose that thus things might have continued had it not been for internal cataclysms in Chechnya itself.

Above all one should note that the promised heaven on earth within the boundaries of the Chechen Republic has not taken shape. While the leadership has made a fortune on sovereignty and on the uncontrolled use of internal resources, the rest of the population has simply remained in a state of poverty. They have long since forgotten such concepts as "pension" and "wages". The industrial infrastructure is destroyed and unemployment is widespread. According to claims made in letters addressed to the president of the RF, lawlessness and tyranny are flourishing in Chechnya. Crime has grown to threatening dimensions, promoted by the large quantity of weapons among the populace. Naturally malcontents have appeared, and it is already sufficient for opposition to have formed. Today there is dual opposition: in the person of Dudayev's former comrade-in-arms, Ruslan Labazanov, who controls two agricultural regions in the

southeast of the republic, and in the mayor of the Nadtrechnyy region, Umar Avturkhanov, head of the provisional council, in whose name the announcement was made concerning the latest hostage tragedy, in particular, and the "corrupt Dudayev regime maintained at bayonet point" in general.

It seems that the last event at Mineralnyye Vody left no other choice to the Russian side either. Especially after it became known that all the hostage-taking was directed by someone presumably hiding on the territory of the Chechen Republic. But then, the Russian government's announcement that appeared Friday "Concerning the situation in the Chechen Republic" goes beyond the scope of the hostage matter. In the announcement it is noted that the situation in Chechnya has gotten out of control and threatens grave consequences, including large-scale armed conflict. Russia warns that on this basis it will be forced, in accordance with the Constitution and laws of the RF, to protect Russians living on the territory of the republic. In addition to this, the announcement of the RF government expressed readiness for constructive dialogue and cooperation.

However it is not at all easy to determine which part of this announcement is referring to the "ambitious Dudayev regime," and which part to the opposition. While condemning the "mutinous general," Russia has not yet expressed its clear relationship with the opposition, and the term "reasonable forces" is very vague in order to precisely determine the addressee. But what is already absolutely obvious is that none of the sides in opposition to Dudayev is inclined to the actual participation of Russia in the "Chechen matter". This suggests that this is just some sort of flirtation with the "northern neighbor" in the course of the struggle for the Grozny throne. Time will tell how the situation will develop in Chechnya. Not without sarcasm, observers are talking about some sort of "Georgian variant" in which the not unfamiliar figure Ruslan Khasbulatov might play the role of national peacemaker. But these are only suggestions, a lofty political game so to speak. But what is evident is the increased aggressiveness of official Grozny, which is attempting to exacerbate the situation in the neighboring regions of the zone that is in a state of emergency. All of this strongly resembles the tactic of terrorists, who blow themselves up with a grenade along with the hostages. Except that the south of Russia is far from being a single helicopter. In this situation, clearly, you are not going to get by with negotiations alone.

Lithuanian Protest Note Over Airspace Violation

94UM0538A Moscow KRASNAYA ZVEZDA in Russian
2 Aug 94 p 1

[Article by Lt-Col Sergey Prokopenko: "The Russian Il-76 Did Not Threaten Lithuanian Sovereignty"]

[Text] On 29 July, the Lithuanian Ministry of Foreign Affairs sent a protest note to the Russian Embassy in

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Vilnius concerning "continuous violations of the airspace of Lithuania." According to Russian media reports, on 27 July a Russian Il-76 military transport plane, without appropriate permission and disregarding the interdiction of the regional air traffic control center, encroached upon Lithuanian airspace.

This incident was confirmed in reports from the Air Force press center. It was caused by the lack of coordination of the actions of the air traffic control ground services and the untimely delivery of the appropriate notification. However, there was no intent to encroach upon the sovereignty of Lithuania.

UKRAINE

Future of Defense Industry Debated

94UM0504A Kiev NEZAVISIMOST in Russian
8 Jul 94 pp 4-5

[Article from Kiev by Gennadiy Korzh, NEZAVISIMOST columnist: "Do We Need the Defense Industry?"]

[Text] Trilateral talks on nuclear weapons began not long ago among the United States, Russia and Ukraine, but here is what worries people: Won't Ukraine be left defenseless after it closes its nuclear "umbrella"? What else can we count on in building our defense except the "fighting atom"?

Those who deal with the defense problem know that not that much has been done in the years of independence. What money the Ministry of Defense invested in military industry was nothing to write home about, and even that was not brought together in one place. Therefore, having sensed the taste of easy money, the heads of some military-industrial complex enterprises set a course toward "appropriation" [*prikhvatizatsiya*; play on word *privatizatsiya*—privatization]. For under the decorous flag of conversion, by explaining to people quite seriously that the enterprise has to survive, it is possible to auction off production spaces and sell vehicles and equipment dirt-cheap to the nouveau riche.

I, for example, am very troubled by what is occurring at Kiev Kvant. Few know that at one time there was an association almost in the very center of Kiev that was famous in the USSR military-industrial complex; it included a scientific research institute and several other enterprises. With the disintegration of the USSR, the association also broke up.

We will be speaking of the scientific research institute. At one time over 5,000 persons worked here, creating sophisticated electronic systems for naval, ground and air facilities. The institute's developments repeatedly received Lenin and USSR State prizes and the scientific research institute was entrusted with large orders thanks to successful competition with leading Russian enterprises. The scientific research institute exists even now, but...

A Long Arm

I will tell only about some of the problems in whose solution Kvant specialists took part. I recall how I was told proudly in the Black Sea Fleet about ten years ago about the commander of the guided missile cruiser Slava. It was like this. A major exercise was under way. Slava was the command ship of one grouping, and the other was headed by no less powerful a ship, but of a different class. In the final account everything came down to a duel specifically between these two ships. But what was to be done if the ship radars had an approximately identical effective range? Do you recall the sensation that never was—the fight between Muhammad Ali and the Japanese karateist? One relied on hands and the other on feet in the fight, but they just did not come in contact, fearing a crushing blow from the opponent. And so it was with our ships—they stayed outside limits of visibility; they would have "destroyed" each other on coming into fire contact, even though it was practice. The only one which could win was the one which would be first to detect the enemy in some way and issue a target designation to its attack system. Slava's commander won. He moved a ship-based helicopter forward, using its radar for target designation, and thereby was in the position of a boxer with longer arms than his opponent.

But on the whole, there remains the problem of target designation for attack systems of missile weapons in the Navy. Who will issue coordinates for a target located, let's say, 2,000 km away? They puzzled over this problem for three decades and created an echeloned system in four "tiers" (various organizations took part here, and Kvant had its own sector in this tremendous project). Here is what kind of "tiers" there were: spacecraft, airborne early warning aircraft, helicopters of ship-based aviation, and over-the-horizon radar gear accommodated on ships. All these "tiers" were being developed as independent, but in the last years before the USSR's disintegration they were consolidated into a unified system, with common codes, data cards, and communication links. Quite naturally, the Russian Navy now uses this system.

For example, Kvant was developing a receiver for the "space tier." As we know, sophisticated equipment should be serviced at least from time to time. Well, because of the absence of a corresponding agreement with Russia, one hundred Kvant workers were sent off on an indefinite leave of absence and placed on the rolls in Russian fleets by hook or by crook. That is how ties are preserved—not because of, but despite.

Looking ahead, I will say that Kvant is a godsend for Ukraine's Navy, which is being built. It could create a similar but more modern system in collaboration with other institutes—if, of course, this surprising scientific research institute remains intact.

Laser Against Laser

What was said earlier is from the offensive area. We also will talk about defense. The Kvant collective also made

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many unique developments while working under the program for creating a reliable ship self-protection network (air defense). On the Crimean seashore they once set up several stations "specializing" in low-flying targets and carried out a group raid. The best results were from the station created by Kvant.

And an innovation is a station for protection against precision weapons. You possibly remember pictures taken in the Persian Gulf which startled the entire world: a missile penetrates an obstacle and a second precisely enters the hole left by the first. This is how precision weapons operate. Here missiles are guided along a laser beam (bombs can be as well). The panacea for such a weapon is to create another, brighter laser spot to one side of the other one. True, here one still has to get into the system of codes by which the missile is guided... In short such a station exists. Kvant thought it was not mandatory for use only in the Navy: for example, bridges or atomic electric power stations need such a passive system of protection against precision weapons. The idea generated interest in the Ukrainian Ministry of Defense and the station was tested at a Ukrainian range in the summer of last year. The pilots, who have been firing like the Americans demonstrated in the Persian Gulf for about 15 years now, promised to smash the gear to pieces. And in fact, three missiles did enter a circle with a diameter of 1.5 m; true, it was considerably to one side of the station. The laser decoy functioned excellently, which had been required to prove. Insofar as I know, these were the only tests of precision weapons in Ukraine using the latest equipment.

Get Rich or Founder?

We have an abnormal state, because everywhere politics climbs into dominant roles, dictating in the economy, in defense and in education. For example, why was it necessary to wreck unique military schools, for it was fully possible to train officers for CIS countries in them? You say we cannot train cadres for the probable enemy (Russia), but who except for exalted political intriguers placed Russia among these same enemies? Relations between our states have been given the "bending" test equally by radicals from both sides, for whom momentary political advantage is more important than deep-seated national interests.

Ukraine's national interests today are to take the economy out of the crisis, stop inflation and begin to get rich. Was there really harm in earning money by training cadets? And this would have preserved schools in which it also would be possible to train cadres for ourselves.

Who wins from the fact that there is no agreement for Kvant to service equipment of the first "tier" of the Russian Navy? No one. I will say frankly that with such a policy I am surprised that Kvant still exists.

It is not only I who am surprised. Last year, despite quotas, licenses and borders, Kvant supplied equipment for the third "tier" for the Taganrog Aircraft Plant. They

were amazed: Kvant turned out to be the only CIS enterprise which supplied complete sets.

Or take the following. A program of cooperation with the Tupolev firm is in the signing stage. The idea contained in it is very interesting in itself, but something else also is interesting: the attention Russian defense industry workers give to the Kiev designers. The fact is, a St. Petersburg enterprise similar to Kvant turned into a concern and was broken up into a large number of small offices. In the opinion of specialists from the Tupolev firm, the St. Petersburg people now are incapable of performing extensive tasks. But Kvant preserved itself as a unified body.

Its specialists believe that Kvant now would be overloaded with work were it not for the political squabbles. So it turns out that to please political passions we are forcing our scientific-technical elite to starve, pulling down a unique industry, and depriving the state of incomes? Is it not too dear a price for that musical comedy work which individual writers concocted together with ex-ideologues?

But the fact is, we could earn money by cooperating with the Russian defense industry. The frying pans on which so-called conversion is oriented will not bring such dividends. And who will buy them? All the same, soon there will be nothing to fry.

Not resting special hopes on the Ukrainian military-industrial complex, Russia began creating duplicate industries and design bureaus, but it will have to spend a colossal amount of money for a minimum of two or three years for training specialists capable of performing such specific tasks. And if we do not come to our senses, we will end up entirely overboard.

Grandeess Decide Everything

This of course does not mean that we should remain an appendage of the Russian military-industrial complex. But who should be charged with organizing the entire cycle of work connected with creating sophisticated military equipment of a modern type? The fact is that the USSR military-industrial complex was built in such a way that the leading enterprises as a rule are in Russia. It would be difficult to come up with very many of those scientific research institutes and design bureaus of ours which would be able to assume the role of general designer, which have skilled specialists and, most important, practical experience in working with sophisticated systems. The surprising alloy of skill and experience in developing sophisticated systems should without exaggeration be regarded as national property. You yourself evidently already have realized that Kvant is without a doubt one such grandee of the military-industrial complex.

It is to their address, to these grandees, to whom at least those meager funds which the Ministry of Defense is ready to allocate for new equipment should be sent,

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posing the task of being ready to test a particular kind of new armament in about five years. And let the wages remain not very high—the collectives will be working for the long term. Give the people what they are deprived of today—stability and reliability—and they will move mountains. Be sure that a new model will be submitted to the state commission specifically in five years.

Of course, it is stupid to rely only on state financing, but I am sure that, having a guaranteed piece of bread, the bright intellects from the military-industrial complex will be able to earn enough for butter as well. Strictly speaking, nothing new has to be devised. Let us examine the situation in detail. The development of new models of arms and military equipment in all world countries is under rigid state control. Arms programs designed for ten years ahead are being developed. Each year the programs are updated and their fulfillment is carefully monitored. In addition, there are supplementary programs of so-called "critical technologies" in the leading military powers. The state finances research work which cannot be used directly for developing military equipment for the time being, but whose results will lay a foundation for "tomorrow's weapons" and will ensure support of a rather high technical level of arms in the future. Especially great attention is given to "critical technologies" in the United States, where a special law on their financing has been passed. It is believed that it was only thanks to state support of "critical technologies" in the United States over a number of years that it became possible for the appearance of precision weapons, whose effectiveness, according to general opinion, approaches that of nuclear weapons.

Modern weapons, especially precision weapons, represent a complex system, a certain original alloy of ammunition, means of delivery, and controlling electronic system, all components of which must work at the limit of the equipment's capabilities. The development of such complex systems of military equipment is being carried on organizationally in a similar manner throughout the world. The client, i.e., ministry of defense of the corresponding state, chooses the leading firm, with which it concludes a contract for development and fabrication of a prototype of the new weapon. The firm has to be powerful enough to ensure fulfillment of the entire set of tasks of incorporating the main engineering solutions, directing the work of related industries, and then conducting all kinds of tests of the prototype as a whole. As a rule, one firm is incapable of fulfilling the development of all system components, and so the leading firm chooses for itself coperformers, the number of which may reach several dozen. A pyramid forms, as it were, with the leading performer of the order, which relies on numerous related firms, at the apex. As a result, thousands of specialists of various profiles work for the end goal, always under conditions of rigid time periods and increased responsibility. Therefore it is fully understandable that for success in developing such systems people must have an incentive for results of their strenuous work.

This problem—how to ensure an incentive for enterprises in fulfilling defense orders—is a question of state importance and is constantly in the field of view of parliaments and governments of all countries. This problem is solved in different ways in leading western states, but two approaches can be singled out in a simplified way, which we will call conditionally "American" and "French."

The essence of the "American" approach is simple—the state allocates so much money for weapon development in order to ensure higher profit for firms in comparison with other clients, as a result of which firms literally fight among themselves for the right to receive a military order. The method works excellently, but only very rich countries can allow themselves such an approach. Probably only the United States uses it systematically; other countries use it only for a few especially important developments.

But in France the Ministry of Defense saves taxpayers' money and does not permit firms to "wring out" superprofits in military orders. Thereby only the best developments are well paid for, which of course requires enormously fewer funds than does ensuring high profits for all participants. But tighter state control also is needed for such a system, and so French firms which develop arms are under conditions of stronger administrative control on the part of state structures, right up to nationalization of private enterprises. This occurred, for example, with the well-known Thomson electronics firm, nationalized by the state in 1981 and actively included in the French military-industrial complex, which was being modernized in those years. By the way, this now is a powerful, multiple-profile firm which performs the role of leading developer of sophisticated military equipment, widely selling this equipment for export and successfully using military technologies for producing high quality civilian products.

It is obvious that the organization of arms development must be closer to the "French" type in Ukraine, where 100 percent of military-industrial complex enterprises still are state-owned and which still cannot be included among rich countries. At the same time, this problem now is especially acute for Ukraine, since among our sophisticated technical products only military equipment is competitive on the world market. If urgent steps are not taken, then collectives capable of developing new weapon systems simply will fall apart under the economic conditions now existing in Ukraine, and then it will remain for long years a raw material and agricultural appendage of developed states of Europe, to say nothing of ensuring its own national security. Yevgeniy Steriopolo, chief designer of Ukraine's Minmashprom [Ministry of the Machine Building Industry], suggests his version of the profile of a major military-industrial complex firm optimally adapted, in his view, to Ukraine's conditions. The simplified model of the functioning of such a structure is as follows.

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The nucleus of the firm is a powerful (4,000-5,000 employees) state scientific research institute or design bureau, whose main task is to fulfill military orders formed on conditions of minimum profit. The firm also includes several subsidiary enterprises specializing in the output of different kinds of civilian products. It is desirable that these subsidiary enterprises be joint-stock enterprises, and the majority of stocks must belong to workers of the firm's central nucleus. New technologies and materials developed in the central scientific research institute in fulfilling military orders are transferred to subsidiary enterprises, which use them to produce consumer goods with new characteristics. Conditionally speaking, for example, heat-resistant coatings for missiles are applied to frying pans. The new commodities enter the market and bring higher profit, which is distributed among stockholders.

One can assume that with that organization all interworking parties will have an incentive for joint work. The client, the Ministry of Defense, receives military equipment essentially at production cost, i.e., with minimum possible expenses; the firm's subsidiary enterprises receive new materials and technologies essentially gratis; and the military equipment developers receive additional pay for their labor through participation in profits of subsidiary enterprises.

A Preposterous Scenario

It is according to that model that it would be possible to restructure the Kvant scientific research institute, which, by the way, is close in structure and work profile to the French firm of Thomson. And do this immediately, without putting it off, as they say. But not likely, when even the Ukrainian Minmashprom, which mechanically combined the enterprises of three former Union ministries, has not worked out a considered strategy for its own activity.

The Kiev press already has written about what are at first glance absurd things going on around Kvant. They decided... to privatize it. What other country permits privatizing a defense enterprise? Only ours, where the smell of free money seemingly can drive anyone mad. Why struggle with fulfilling the state defense order or survive awaiting it if it is possible to auction off everything easily already today? Still, nine hectares in the center of Kiev is no trifle.

And Kvant Director Stepan Denisovich Ignatenko is in the center of the situation. Raised by the defense industry, he possesses all qualities necessary for work in the sector: strong-willed, decisive, harsh. Therefore do not let his expressions of the following type embarrass you: "I am covered with blood up to my elbows. I will remove anyone from his position." And he does, in accordance with the bylaws. And in accordance with the law, the ministry does not intervene in his actions. Well, we still will have more than one hiccup of the dictatorship of directors which now exists in our economy. But now it is a question of a specific enterprise, a defense

enterprise. And if the director has set a course toward privatizing it, and the minister tacitly supports this line, then possibly they should find a more worthy use for their energies in organizations directly charged with handling this national matter?

And do not be reassured by assertions that privatization of Kvant allegedly failed because the Minmashprom collegium approved the list of enterprises not subject to privatization, and Kvant was among them. A new scenario has appeared: under the pretext of "nonsurvivability," they decided to break the scientific research institute up into a large number of small offices. It is clear that evidently it will be much easier to cope with each of them individually.

And so, the question is cardinal: Do we need the defense industry? If yes, then it would be high time to stop the "appropriation" of Kvant. If no, well, shall we drink and eat up the last bit? There possibly will be enough for about five years. But I personally am against it because our own Soviet state took from me, from my loved ones, as well as from the entire people by investing in the military-industrial complex. So Kvant now also should work for the entire state, and not for that group which later will appropriate it. And if Kvant and the other grandees of the Ukrainian military-industrial complex remain in formation, I will be calm over Ukraine's defense, but I have profound doubts on this score for now.

Inefficiency of Conversion System Threatens Weapons Production

94UM0529A Kiev BIZNES in Russian No 29, 26 Jul 94 pp 1,3

[Article by Yevgeniy Steriopolo: "Reforging Frying Pans Into Missiles, or How We Can Reorganize the Military Industrial Complex"]

[Text]

The place of the country in the modern world and its weight in the international community are determined by many factors. And no matter how much this may sadden some people, military might is not the least of these. But military might at the end of the twentieth century, quite naturally, mainly depends not on the numerical strength of an army and on the number of divisions, but on the level of the arms and equipment. Military conflicts of recent years in various regions of the world have convincingly proven that war as presently understood will be not very reminiscent of combat actions of the Second World War, with its massed armor strikes, assault crossings of water obstacles, and the capture of nameless hills. In times when the mind of the scientist and experimenter has acquired no less weight than the talent of the general, it is a war of electronics, communications, and the most up-to-date, primarily precision equipment operating at the limits of capabilities of today's science.

It is not surprising that every country concerned for its potential is striving to supply its own armed forces with

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the most modern equipment, either by buying it or by developing it independently. After inheriting a mighty scientific and experimental base from the former Soviet Union, Ukraine might have assumed far from the lowest place among those developing military equipment. But in recent years processes have been at work that are capable of pushing the country backward a long way, so that ultimately we will have to purchase modern weapons and equipment from other countries, in the process investing much more than would have been required to produce that equipment.

One result of the process of unruly conversion is that today, according to some data, less than three percent of the funds received by the Ministry of Machine-Building, the Military-Industrial Complex and Conversion are spent for development and production of military equipment proper. Present-day scientific groups are falling apart, losing their best "heads" and earning their living by leasing their institute personnel to commercial structures. Apparatus capable of working on highly complex tasks in development of precision weapons are used, in the best case, to produce simple items "for consumers." How can we break out of this impasse?

In the United States of America, the state ensures that the interest of companies in military orders will be high by allocating significant funds from the budget. There are enough funds to earn significantly higher profits than from non-military orders. So it is no surprise that the most well-known companies and the largest corporations literally fight over orders from the Defense Department. Such an approach works flawlessly, but of course only rich countries like the United States can afford it. With its budget, Ukraine cannot even dream of it. Of course, some steps by the state to meet the military industrial complex are possible even today, and it should be noted that some of them have already been taken. For instance, in November of last year the Cabinet of Ministers adopted a special decree that provided for a number of measures to encourage enterprises developing military equipment, in particular tax and credit benefits.

But overall, evidently, the path of other countries. France for instance, is much closer for Ukraine. In France, the Defense Ministry saves the taxpayers' money and does not allow companies to "squeeze out" enormous profits from military orders. There is a complex system of incentives aimed at additional reward for success, in particular for the best research and developments. The "French" path is also close to Ukraine in that such a system requires vigilant state monitoring. And in our country, where almost 100 percent of the enterprises of the military-industrial complex remain the property of the state, this is quite realistic. It would be necessary to resolve a number of "structural" problems, however. In other words, to reorganize the military-industrial complex in accordance with the same tested world approaches.

In particular, throughout the world the organizational scheme for development and adoption of military equipment is approximately the same. The client, whose role is usually played by the defense ministry, selects a head company, with which it signs a contract for development and manufacture of an experimental model of a new weapon. The company must be sufficiently strong to assure establishment of the basic technical solutions, to organize the work of subcontractors, and then to conduct all types of complex tests of the test model as a whole. As a rule, one company is not capable of developing all the components of a system, so co-executors are chosen, of which there may be several dozen. A kind of pyramid is formed, the tip of which is occupied by the head executor of the order, relying on many subcontractor companies. As a result, thousands of specialists of different types work on the final goal, always with strict deadlines and high responsibility, so it is quite understandable that precise organization of the work by the head executor is of greatest importance for success of the research and development.

For Ukraine, the problem is that in the former Soviet Union weapons research and development was organized in such a way that nearly all of the head enterprises were in Russia. For this reason, after the breakup of the Union the Ukrainian military-industrial complex found itself decapitated, so to speak: with a general excess of small and medium enterprises of the military industrial complex, there is an urgent shortage of large scientific research institutes and design bureaus capable of acting in the role of head developers of modern weapons systems, capable, in other words, of completing the cycle, or topping off the pyramid. Nonetheless, there are several such enterprises. Undoubtedly the Dnepropetrovsk-based "Yuzhmash," the Kharkov Armor Design Bureau, the Kiev "Antonov" company for military transport aviation, and the Kiev "Kvant" must be counted as such. As many specialists see it, the formation of the minimum necessary collection of head enterprises of the military-industrial complex, and their state support, is possible on precisely this basis. After receiving this support, enterprises combining large groups under unified leadership (several thousands of qualified and highly qualified specialists) will be able to create the base on which the entire system of research and development of military equipment will be organized.

In the opinion of this author, a scientific production organization of the mixed type will be the most effective form of activity of such companies. This form is necessary to achieve the capability of supporting the "French" approach to research and development of weapons and military equipment, in other words without relying on excessive budgetary support, to organize the work of a company so that the use of "high" military technologies for the production of civilian goods is encouraged in every way, in order to obtain additional funds in that way.

Thus the large enterprise, directed toward development and manufacture of experimental models of weapons

and military equipment, will become the core of the scientific-industrial association. Toward this end, the design bureau and experimental plant must be combined in one legal entity (with a single account). Daughter enterprises will form around this core, with the task of developing and manufacturing civilian goods. The central enterprise would be a state enterprise, and the daughter ones joint-stock enterprises, with the workers of the central enterprise owning the majority of stock.

The association functions as follows. The central enterprise receives orders from the Defense Ministry of Ukraine that are formulated for minimal profitability. The new technical solutions, materials and technologies created in the research and development of military equipment are transferred to the daughter enterprises, which use them for civilian goods. (For example, heat-resistant coatings for missiles are put on frying pans; high-resolution television displays are used for high-resolution television, etc.). Products of new quality made in this way will enter the market and bring in profits. The profits are distributed among the stockholders, who basically are workers of the central enterprise of the scientific production association.

This sort of organization assures the interest of all the interacting parties:

- The Defense Ministry receives experimental models of military equipment practically at cost.
- The daughter enterprises essentially receive the most science-intensive part of their work ready made: new materials, designs, technologies.
- The personnel of the central enterprise of the scientific production association receive additional pay for their labor by participating in the profits of the daughter enterprises.

Yes, undoubtedly the designers and engineers who own the stock of the daughter enterprises will be able to become fairly well off, to put it diplomatically. Someone may see injustice in this: they gain personal profit for themselves by drawing money from the budget. But this "privilege" by no means guarantees a profit; it only creates an opportunity to obtain one. If the work of those designers and engineers is bad, naturally there can be no thought of profit. It will come only if these people really are "bright," and their hands "golden." As for the moral aspects, eventually we will have to accept the layering of society into rich and poor, and who if not scientists and inventors, who bestow "new technologies" on society and assure progress, have the right to receive according to their talent? The model I propose is by no means abstract. It can be realized even today as a serious experiment, on the basis of one of the large formations of the military industrial complex, for instance the "Kvant" scientific research institute mentioned above.

Toward this end, it is necessary to combine into one enterprise the "Kvant" scientific research institute and

plant, as it was in the recent past before they were separated, and reform the charters of the enterprises already existing on the basis of "Kvant" in accordance with the proposed model, for instance "Kvant-Efir," "Kvant-Radar," and "Kvant-Mikro." Here after becoming daughter enterprises, the latter would have their own accounts and freedom of maneuver. Thanks to this, the current situation that has arisen at "Kvant" would become impossible: under conditions in which the main client, the Defense Ministry, has not paid for several major orders, all the profit received from the "peaceful" orders goes into a "common pot" to pay off the debt.

Given energetic actions, this scheme could be realized even this year, and subsequently the Ministry of the Machine-Building Industry could assign other unprofitable and inefficient enterprises of Kiev to this association, expanding the state basis of the scientific production association.

However it is a significant problem today that by no means everyone at "Kvant" or in the Ministry share this viewpoint. An enterprise with a strong production base and an advantageous location almost in the center of the capital is always going to attract a lot of people as facility for leasing of premises or a shop for earning a small short-term profit. That is why a quite different scheme for reorganization of the association has also appeared. According to this scheme, the central core should also be broken up into several companies, having their own accounts and thus independence. But such a "reorganization" would be reminiscent of driving nails with a microscope, since this unique collective, designed to resolve the most difficult problems, particularly in the field of military equipment development, will fall apart and lose the mobility and cohesion that took years to develop. The fracturing and alienation and the lack of a clear vertical structure will make it impossible to make efficient decisions. Many agreements and "arrangements" will be needed, a mass of conflict situations will arise, and in the research and development of military equipment, this will mean a loss of the main thing, time.

The confrontation surrounding reorganization of "Kvant," which last year acquired all the features of a trivial war for property, with hunger strikes, "personnel" battles, and newspaper articles, thus went far beyond the framework of a normal conflict and acquired fundamental importance. Largely dependent on the outcome of this confrontation is the model of existence of the military industrial complex of Ukraine, and the answer to the question: Can we arm the Ukrainian army with the latest developments of science independently, or will we be forced to buy weapons from other countries, something that will be incomparably more expensive.

Warheads To Be Exchanged for Fuel

94UM0532B Kiev NARODNA ARMIYA in Ukrainian
5 Jul 94 p 1

[Unattributed news item: "Ukraine Will Not Halt the Withdrawal of Nuclear Weapons"]

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[Text] Ukraine, as announced by Deputy Chief of the Standing Commission of the Supreme Soviet of Ukraine on Questions of Defense and State Security Adam Chikal, has withdrawn 36 percent of the warheads as of today, while Russia is obligated to provide 25 tons of fuel elements for nuclear power plants by September of this year.

Oliynyk Briefs Commission on Missiles, Nuclear Warheads

94UM0532C Kiev NARODNA ARMIYA in Ukrainian
28 Jul 94 p 1

[Item by Volodymyr Mokhurenko: "Nuclear Weapons Again"]

[Text] A session of the Commission of the Supreme Soviet of Ukraine on Questions of Defense and State Security was held on July 26. The commission supported the request of the President of Ukraine for the Supreme Soviet of Ukraine to approve the candidacy of V. Radchenko to be named to the position of Minister of Internal Affairs of Ukraine.

The commission, having heard and discussed information from Deputy Minister of Defense for Armaments Colonel-General I. Oliynyk pertaining to strategic missiles and nuclear warheads in Ukraine, made the appropriate decision. This problem will occupy a prominent place in its work.

Missile Complex Director Views Accomplishments, Future Prospects

944K1949A Kiev URYADOVYY KURYER
in Ukrainian 21 Jul 94 p 4

[Interview with Pivdenny Machine-Building Plant General Director Yuriy Serhiyovych Alekseyev by Serhiy Kravchenko under the rubric "The Pages of History": "Yuriy Alekseyev: 'We Have Something To Be Proud Of'"]

[Text] *The fiftieth anniversary of the Pivdenny [Southern] Machine-Building Plant is on July 22.*

The world history of rocket building and cosmonautics would undoubtedly be poorer without such a mighty scientific-production complex as the Pivdenny Machine-Building Plant [PMZ] association. Four generations of unique strategic missiles using high-boiling fuels were built here over past decades. The Dnipropetrovsk launch vehicles Kosmos, Tsyklon-2, Tsyklon-3, the famous Zenit, and the Okean and Interkosmos spacecraft are known in every corner of the world. Almost 400 such space "marvels" in all were developed at the Pivdenne KB [Design Bureau] and manufactured at Pivdenmash.

Association General Director Yuriy Alekseyev talks about the history, the present day and the prospects for development with a Ukrinform correspondent on the eve of the 50th anniversary of the missile and space giant on the Dnipro.

[Kravchenko] Yuriy Serhiyovych, recall if you would the principal pages in the biography of your enterprise.

[Alekseyev] It was founded as a motor-vehicle plant in 1944, almost immediately after the liberation of Dnipropetrovsk from the fascists. The DAZ put out the Ukrayina motor vehicles and lift cranes for several years. We made various types of tooling, and chassis for domestic motor-vehicle building. The decision was then made, in connection with the so-called Cold War, to re-orient the plant. Motor-vehicle production was curtailed by 1952, and the enterprise went under the supervision of Serhiy Pavlovych Korolov—the founder of the industrial production of missile technology. Taking as a model the German V-2 rocket, the plant was assigned to put out missiles similar to it. Its own KB [design bureau] was opened concurrently as an affiliate of Korolov's. A young creative workforce was assembled at the bureau that soon "pounced" on the independent creation of a ballistic missile. Fearsome, warlike, having no analogues. It was designed and won the high regard of the highly experienced designer Mykhayl Kuzmich Yangel before 1954. The reliable missile shield for the entire USSR began to be "forged" right from that time.

[Kravchenko] And when was cosmonautics "hooked up" with the rush to build missiles?

[Alekseyev] The desire to try ourselves in the realm of assimilating outer space appeared virtually immediately after the creation of the military missiles. One of the missiles was reconfigured for that purpose literally on the fly. Then we took up the creation of satellites. The first of them (the DS-1) was launched at the beginning of the 1960s. The history of our spacecraft goes back to it. Eighteen of the 24 satellites launched under the Interkosmos program were designed by our designers and manufactured in the shops of the PMZ.

[Kravchenko] The PMZ wheeled tractors, long well known in all corners of the globe, are also on your "business card," aside from the missile and space hardware.

[Alekseyev] We were indeed engaged in tractor building concurrently with the augmentation of missile production as early as 1953. The country had taken the line at the time that the defense industry should also resolve national-economic tasks. We were designated a leading echelon in the assembly of the tractors. The Rybinsk Aviation Engine Plant began supplying us with diesel engines, the Kovrovskyy, where they manufactured firearms, with clutch linkage, and Barykada from Volgograd with front axles. This cooperation by the great defense enterprises provided an opportunity to make durable, market-competitive tractors. There are now close to two million of our vehicles working in 50 countries around the world. It has become very difficult to produce them now from constituent items "from abroad" under today's economic conditions, with the weakening of production ties and the credit and financial instability. Whereas at the end of the 1980s we were shipping 60,000

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tractors a year, last year it was barely 26,000, and this year will scarcely reach 15,000.

[Kravchenko] Aren't you thinking, looking at everything, about shutting down the tractor production altogether as unprofitable, and shifting the manpower and funds freed up thereby to profitable products?

[Alekseyev] Not at all. First of all, there is a government program to create a Ukrainian tractor where everything is stipulated and scheduled in detail. And if we had received the 700 billion karbovantsi under it last year, the first vehicles assembled entirely from domestically produced constituent parts and assemblies would have been assembled before the end of this year. They are already well underway on this matter in Kharkiv, Kiev, Chernihiv, Zhytomyr, Sumy and other industrial centers around the country. We are not losing hope that the program will be realized anyway. Second, we are doing everything, apart from seeking out partners in our own country, to preserve and augment ties with the producers of parts outside our borders. We will settle with our neighbors with the finished products—missiles, tractors, TNP. We are receiving no fewer orders for the PMZ from the country, or even more, than in prior years. We are planning to modernize and upgrade the vehicle, making it more powerful and comfortable and assimilating a whole range of tractor hardware from 45- to 100-horsepower vehicles. Close to one and a half thousand excavators and loaders have been put out on the basis of our tractor. We are thinking of working more actively into the world market with our competitive machinery.

[Kravchenko] What is being done for that purpose in the missile and space, tractor and other product lines of your association?

[Alekseyev] We have been able to preserve our scientific and technical potential. We are filling orders from the national space agencies of Ukraine and Russia, and taking part in a program to create international stations—the Alpha project. Our rocket, in accordance with it, is to launch and deliver cargo for its installation in orbit as soon as 1997. The development of national means of launching spacecraft is projected in accordance with the national space program of Ukraine by the year 2000. We are devoting a great deal of attention to the creation of reliable systems for communications, first and foremost in geostationary orbits, remote systems for sounding the surface of the Earth, the seas and oceans, for the study of natural resources, for ecological monitoring and for the predicting of natural phenomena. We are also to develop a three-stage version of the Zenit under international Russian-Ukrainian programs. We are concurrently working on improving the tractor and trolleybus, and stabilizing the output of consumer goods. We are now engaged, for instance, in the modernization of microwave ovens, and the first batch of Malyatko washing machines has come out. We intend to take up

everything that enjoys popular demand. We want to reach the annual output of 500 trolleybuses and 30,000—35,000 tractors.

We are simultaneously continuing to maintain the missile hardware that is in service with Ukraine, Russia and Kazakhstan in good technical conditions. These missiles will suffice for the next 20 years. The climate in the world will possibly warm such that these devices will have no use altogether in the future except for space, national-economic and scientific purposes. The demand is growing gradually for missile and space hardware already. We are finishing the Okean series craft, on which we have been struggling for five years. It was ordered back by the Hydrometeorological Center of the USSR, and is now being financed by the space agencies of Russia and Ukraine. Its launch is expected in September.

[Kravchenko] The hallways of the plant, figuratively speaking, are overrun with high-level foreign guests and domestic executives of various ranks today. How do you assess the surge in your popularity, and what is the return on these acquaintanceships?

[Alekseyev] There have been shifts, albeit small ones. They allocated additional funds for conversion, for example, after the recent visit of the head of the Pentagon of Ukraine to the plant. Such firms as ours are simply obligated to have more contacts with each other. We used to be known in the world only by a small circle of specialists, as a high-capacity missile-building plant. And that was it. The interest today is broad, businesslike and concrete. When the firm received the head of Boeing this summer, he, captivated by what he saw, promised on the spot to do everything to find options for collaboration. I feel in general that today is a time of sowing, after which must come a time of shoots, and a time to gather the harvest. The first shifts in that direction have occurred. A memorandum on the creation of an international floating launch pad, where missiles can be delivered to anywhere on the equator and sent into space from there, for example, has been signed among the United States, Norway, Russia and Ukraine as a result of the active acquaintance with and study of each other. The problem of building and maintaining land cosmodromes will be removed thereby. This is, of course, still far in the future, but the work has already been launched with our participation.

[Kravchenko] Yuriy Serhiyovych, two-time Hero of Socialist Labor and living legend Oleksandr Maksymovych Makarov sat in this office before you, and then current President of Ukraine Leonid Danylovych Kuchma. The world already knows quite a bit about them. You have so far remained more modestly in the shadows. Is the director's post a kind of launching pad for new heights?

[Alekseyev] I have been asked that question already. They were interested in whether I intend to move to Kiev to a new assignment. I feel that each should realize

himself from start to finish in a certain field of activity, and then try out his strengths in the next. I have not realized myself here completely yet. Everything lies ahead.

[Kravchenko] Please say a few words about yourself, if it is not an official secret.

[Alekseyev] I was born in 1948 in Dnipropetrovsk, and completed secondary school and the local state university there. I am an engineer and engine mechanic by training. After higher schooling I came right to the PMZ in 1972 to an assembly shop, present at the creation, so to speak, of the SS-18 missiles. Now I am the general director. I have spent almost my entire life in one place, one city, at one plant. I am convinced that I have attained what I have only thanks to those with whom I have worked.

[Kravchenko] Do you regret it that the plant used to be one of the flagships of the military-industrial complex and everything was made easier for you than it is now, when you are on the "general" and not the "special" list?

[Alekseyev] I repeat, the military-industrial complex that used to exist in the USSR and Ukraine is not needed and is not possible today. The tactical and strategic tasks that the high-capacity defense industry was connected with under the conditions where there was exhausting muscle flexing in the world do not exist anymore. We should stay today on that "golden" mean that would ensure the stability of the country in its relations with its neighbors both near and far. There will be no SS missile with some ordinal numbers. Our last SS-18s, moreover, are essentially the limit of contemporary missile building. It was difficult and expensive even for the vast USSR to put them out. And what are they needed for, and by whom, today anyway? The political climate in the world is different today. And we, that is a plant of 46,000 people, also want a change for the better.

[Kravchenko] Thank you, Yuriy Serhiyovych, for this discussion. We will trust that the coming half-century will be the golden hour when your workforce and those of other enterprises of Ukraine are able to realize their opportunities to the full.

Defense Industry Conversion Exhibition in Kiev

94UM05324 Kiev NARODNA ARMIYA in Ukrainian
2 Jul 94 p 1

[Article by Lieutenant-Colonel Serhiy Chornous: "Swords Into Plowshares—The Conversion-94 Exhibition Opens in Kiev"]

[Text] The repair enterprises of the Ministry of Defense [MO] displayed a broad range of consumer goods and conversion technology at the Conversion-94 exhibition and sale that the MO of Ukraine and the Ekop concern are conducting in Kiev.

Deputy Minister of Ukraine for Armaments and Chief of Armaments for the Armed Forces of Ukraine Colonel-General Ivan Oliynyk opened the exhibition. He said in particular, "The exhibition demonstrates the considerable capabilities of our enterprises. They are already making a contribution to the output of consumer goods that will enjoy demand both in Ukraine and abroad. This is only the first step that the plants of the Ministry of Defense have taken in the direction of reviving our market. Only a small portion of a broad range of products has been presented here. I would observe that these are just the first fruits of the conversion of defense enterprises. We cannot be oriented toward the output of military products alone today. Our state is not large compared to the former Union or the United States of America. Our Armed Forces are also not large accordingly. The repair of hardware for the Armed Forces, output of products for military purposes and production of goods and machinery for the national economy should thus be combined in optimal fashion at defense enterprises. But the defense enterprises have technologies that can be employed successfully in the national economy."

Ivan Ivanovych Oliynyk indicated in reply to a question from a correspondent of NARODNA ARMIYA, with regard to the future prospects of the exhibition, "Considerable funds are required to organize a sound exhibition. The time is not far off when both our Ukrainian and foreign enterprises will be trying to come here. They will pay to lease exhibition space, as is done around the world. We are providing it, as well as a whole set of services (marketing, assistance in setting prices, the search for buyers), for free today. This is done in order to interest the producer and assist the plants of the MO of Ukraine in restructuring themselves quickly and finding buyers for their goods. These enterprises have considerable advantages compared to the industrial giants. They have a realistic chance of reconfiguring production over a short period of time, and finding their niche in the contemporary market. And I believe that this exhibition will assist them in that good cause."

In confirmation of these words, the exhibition had scarcely opened and four agreements had already been signed with foreign firms for the delivery of the products of conversion.

"Today, when broad-scale cutbacks are underway in the Armed Forces of Ukraine, the enterprises of the MO are standing idle, and modern equipment is growing obsolete both functionally and physically," said the president of the Ekop concern, Academician of the Engineering Academy Anatoliy Lykov. "One of the chief tasks of the exhibition is to support agreements and provide people with work, and enterprises with the opportunity to survive."

This exhibition will be in permanent operation. Some time later it will grow into a unique kind of informational center. Large-scale exhibits such as prime movers based on the T-55 tank, firefighting vehicles and pipelayers will be accommodated in an open space. One may

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also become familiarized in greater detail with the products, on the recommendation of the employees of Ekop, right at the enterprises. Goods for the home, farmstead—framing for greenhouses—and unique manual cultivators, small and handy cement mixers, all types of tools, clothing, footwear and various types of household appliances, spare parts for combines and motor vehicles, furniture, simulators and special equipment for point of sale were all represented at this exhibition.

Producers, of course, have an interest in the defense machine tools and a broad selection of various types of tooling. The prices for them are 35 percent or more cheaper than store prices. There are also goods that you could search for high and low across all of Ukraine. The farmers are even going to Russia, for example, for the rings for diesels and plunger pairs for agricultural equipment. These products that are so necessary, especially in the country and the more so on the eve of the harvest, have been mastered by the Kiev Shipbuilding Plant.

The section "Technology for Agriculture" was quite interesting in general. The enterprises of the MO of Ukraine are putting out silage harvesters, special tractors and lift cranes. The Zhytomyr Tank Repair Plant has even successfully assimilated the output of a brickyard, equipment for the cutting and polishing of granite, and the refinement of flax.

The Stepok Plant in the Zhytomyr area had a large exhibit. They only used to repair radar sets there. Today they put out handy and inexpensive kitchen appliances, and cupboards for keeping fruits and vegetables—a unique kind of automated cellar on the porch. The Kharkiv Tank Repair Plant has assimilated the complex technology for the casting of small disks for passenger cars.

The exhibits—all-purpose tractors, the Baryer armored vehicle for the Ministry of Internal Affairs, a special firefighting vehicle, and other technology that was created on the basis of tanks and other terrible combat vehicles—testifies eloquently to the progress of conversion at the plants of the defense industry.

Colonel-General Ivan Oliynyk, in response to a question from a correspondent regarding which of the exhibits he would take, said, "There is much here that is interesting, but what I liked most is this cast-iron fireplace. I would take it if I had a dacha. The more so as it is not that expensive."

The address of the exhibition, for interested parties, is 26 Artem Street, Kiev.

BALTIC STATES

Russian Troop Withdrawal Agreement Faulted

944K2010A Moscow KOMSOMOLSKAYA PRAVDA
in Russian 3 Aug 94 p 3

[Article by correspondent G. Sapozhnikova: "Pensioners, Prepare To Depart! Who Duped Whom Signing Agreements on the Withdrawal of Russian Troops From Estonia?"]

[Text] The documents were finally published in the newspapers and it thus became clear that we will not be seeing the epilogue to this drama this season. After the pompous signing of the Russian-Estonian agreements, there will be a second act: ratification.

At the same time almost all the more or less large parties of Estonia appeared with declarations that there would be no ratification at all. One legislator, Kalyu Pyldvere, accused Lennart Meri, the president of Estonia, of betraying the country. Academician Endel Lippmaa, one of the leaders of the opposition Coalition Party, assures everyone that the presidents signed another secret protocol, which protects the rights of Russians and harms the national interests of Estonia. He cites a powerful argument: How could it be anything different when the minister of foreign affairs of Estonia has a Russian father? Tunne Kelam, leader of the Party of National Independence and vice speaker of the State Assembly, openly calls on the people to refrain from making excessive noise for the time being so that the withdrawal of the troops could be guaranteed. Then, we can make as much noise as we wish. Let us also raise this question about recognizing the occupation. Which, naturally, provides good grounds for a new "act in the play."

What is characteristic is that both the Russian and Estonian presidents are highly pleased with the signed agreements. What is strange is how both ordinary Russians and ordinary Estonians feel certain that they were duped. That is, first of all, due to the nebulous nature of certain formulations, which will inevitably lead to varying interpretations. For instance, what is the meaning of Point 1 in Article 2, of which Russian diplomacy is so proud: "Military pensioners and members of their families will receive a residence permit in the Estonian Republic, except for those individuals who were in a substantiated manner expressly denied that by government decision because of a threat to the security of the Estonian government?" Yes, almost everyone will be denied, inasmuch as in the opinion of Estonian officials they all present a threat, no matter how hard Vasily Svirin, head of the Russian delegation at the negotiations, assures us that in case of denial the Estonian side will have to submit substantiated arguments. It would be interesting to know whom it will be presenting them to. To the international community? The fact that a CSCE representative will be included in the government commission which will be delivering the verdict—whether some retiree is to live in Estonia or not—means absolutely nothing. The CSCE does not interfere in the internal affairs of other countries.

A surprise is contained in another article in the agreement on withdrawal of troops of the Russian Federation from the territory of the Estonian Republic, to wit, Article 19, which states: "The Russian Federation compensates material damages caused the Estonian Republic or a legal or a physical body situated on its territory by the action or inaction of the armed forces or of their individual members in the performance of their duties

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within the scope determined on the basis of claims submitted in accordance with the legislation of the Estonian Republic." Could this constitute a tacit recognition of the occupation that Estonia is so interested in and which grants it the right to demand withdrawal of the "civilian garrison," that is, those who settled in Estonia over the past 50 years, along with the army, as well as compensation for the ecological damage that was inflicted, whose figures are being computed for a long time and from time to time are set at astronomical levels? At any rate, the agreement contains not a word about compensation for military facilities being abandoned or about mutual settlement of material claims.

Russian diplomacy, of course, must be given its due. It somehow managed to include a series of important and clever points in the signed documents, to which the Estonian side had vigorously objected in the past. For instance, the point that Estonia will participate in the construction of housing for military personnel if the financing of such housing is conducted by third countries. It is necessary to evaluate the possibility of privatizing housing for military pensioners that was won for what it is worth and reread several times Article 6, which theoretically endows former military personnel and their family members with economic and cultural rights "in accordance with commonly recognized international legal norms on human rights."

It sounds attractive and mysterious, and it would have been possible to write off such a lack of specifics as being due to diplomatic language were it not for Riina Konka, chief of department in the Estonian Ministry of Foreign Affairs, declaring yesterday that all these articles were formulated in a hazy manner intentionally. If one recalls the consequences brought about by such haziness in the agreement on fundamentals of interstate relations signed by Yeltsin in January 1991 (that agreement in essence made it possible to deprive half-a-million non-Estonians of citizenship), the agreement on troop withdrawal would be better called a verdict.

CAUCASIAN STATES

Status of Conflict Around Kodor Canyon

94UM0533A Moscow KRSNAYA ZVEZDA in Russian
5 Aug 94 p 1

[Article by Col Vladimir Zhitarenko: "Kodor Canyon, Summer of '94"]

[Text] From a distance you can scarcely understand how tight this perhaps last knot of the Abkhazian-Georgian conflict is.

A few days ago I returned from the Kodor Canyon. I met with the local leaders of the sides involved in the conflict—Abkhazian, Georgian, Svan. Alas, they have completely different interpretations of the Agreement on a cease-fire and separation of the forces drawn up in

Moscow on May 14, or more precisely, they have differing interpretations of one of the points of this treaty. It is worth citing this point in its entirety:

"Under the supervision of the peacekeeping forces of the Commonwealth of Independent States (CIS) and UN observers, with the participation of representatives of the sides from the Kodor Canyon area, the troops of the Republic of Georgia will be withdrawn to disposition areas outside the borders of Abkhazia.

At the same time a regular patrol of peacekeeping forces and international observers will be organized in the Kodor Canyon area."

Unfortunately, it is precisely the vagueness of the wording of the this point that hinders the fulfillment of the demands mentioned above. For instance, what is the proposed deadline for the withdrawal of the Georgian troops, and what is understood as regular patrolling? Thanks only to the persistence and diplomacy of the commander of the Russian peacekeeping forces in Abkhazia, Maj-Gen V. Yakushev, have they succeeded in specifying the date for the assembly of the heavy equipment and armaments of the Georgian sub-units in Saken. A Russian reconnaissance detachment has twice crossed the canyon all the way to Zemo-Laty. Two more times the commander at grave risk led a small column of trucks a little bit farther in the direction of Kvabchar. The last time we went all the way up to the place where the road was blown up by the Svan insurgents. The UN observers approached the Svans from the Georgian side. All of this took place over the course of last month. It would seem that such actions could also be understood as regular patrolling.

But the Georgian side insists on the constant presence of peacekeepers in the canyon. They say, set out one or several posts—then at least you can talk about guarantees for the Svan population in the face of possible reprisals against them on the part of the Abkhazis, and then, they say, the Georgian units will finally be withdrawn. But since the road has been blown up—where are the posts to be put? There is no sense in having these posts all the way to Kvabchar, because there are no Svans there. Should airborne peacekeeping units be air-dropped in farther to the west? The Svan command admits that approximately 200 local insurgents are not under its control, and that in addition to small arms they are armed with the "Shilka" anti-aircraft system, and the portable "Igla" and "Strela" missile systems. Besides the insurgents that are not under the the Svan commander, E. Kvitsiani, there are another 150 volunteers under his supervision who are constantly at the positions. In addition, there is a contingent ten times larger, including adolescents and women, ready at any moment to take up arms. Each one of them has an automatic "under the pillow". In this regard, hints of threats from the Abkhazian side appear to be more than warnings (they say, if in the near future the Svans do not turn Georgian units out of their villages and their territory, then the armed forces

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of Abkhazia will be ordered to do so). A lot of blood could be spilled, because the Svans are not a people who submissively lay down their arms.

Moreover, it is not ruled out that their arsenal can be replenished. Recently Kvitsiani announced that he "bought" a heavy combat equipment unit from the Georgians. In all, in the Saken region the Georgian sub-units should have assembled for subsequent destruction under the supervision of the peacekeeping forces and UN observers 6 howitzers, a T-55 tank, two infantry fighting vehicles, one light armored tractor, and several mortars—everything that was not in condition to be moved through the pass into Georgia. Such data are available to the staff of the Russian peacekeepers, but it is not yet possible to verify their authenticity. This is prevented by that same blown-up road, the chaotic mining of the area, the same impossibility of a helicopter assault landing. All of this permits the Georgian side to constantly "update" the data. The last meeting of Maj-Gen V. Yakushev with the leader of the Georgian sub-units in the canyon, Maj-Gen G. Kurashvili, brought brought the following surprise - there are not six howitzers in Saken, but only three. Where are the rest? Do the Svans have them? Are these the ones that Kvitsiani "bought"?

One might think, what difference does it make whose equipment it is? Any equipment needs to be removed from the Kodor Canyon area or be destroyed to avoid possible trouble. But if one strictly adheres to the spirit of the agreement, the Russian peacekeepers and UN observers are obligated to monitor the removal or destruction of equipment in the Georgian sub-units. It is up to the Abkhazian authorities to sort things out with the Svan formations. Isn't it true that a difficult "sorting-out" might occur in the future, to the accompaniment of howitzers?

The same Georgian sub-units still remaining in the canyon, whose numbers are concealed by their command group, might also pour "oil in the fire". Two weeks ago the command group announced that only 20 men remained on the banks of the Kodori River: the operating crews for the artillery systems, crews for the tank, MTLB, and two infantry fighting vehicles. A few days later it was updated to 120 men. The Abkhazis gave assurances that in the canyon there were up to two infantry battalions, more than 500 "bayonets." Shortly thereafter the Georgians also confirmed that yes, there were two sub-units, but really, all in all, border troops.

It is comforting that the fire between the opposing sides, all the same, has ceased for a month. Everyone is fed up with fighting. That includes the Abkhazis, who have been blocking the withdrawal from the canyon to Sukhumi, and the Georgians, and the Svans.

Both sides understand very well that only the Russian peacekeepers can be a guarantee of peace. The latter enjoy unquestionable authority among them. But much

is being hidden and concealed from them. Such is the logic of war, multiplied as well by the nature of the mountain people.

P.S. Yesterday it was learned that General V. Yakushev has nevertheless brought a reinforced platoon of paratroopers into the canyon and two more platoons are in a state of readiness to enter the area.

Karabakh Army Official Expects New Offensive

944K2015C Yerevan YERKIR in Armenian 1 Jul 94
pp 1, 2

[Interview with Serzh Arushanyan, deputy chief of the political section of the Defense Army of the Nagorno-Karabakh Republic, by HAYLUR correspondent Vache Mkrtchyan; date and place not specified]

[Excerpts] [HAYLUR] What is the situation on Artsakh battlefronts?

[Arushanyan] At present we have relative peace along all battlefronts. The adversary fires with various weapons on our defense positions in isolated incidents, mainly at night, trying to destabilize the situation. We mount reprisal operations only when such incidents begin to affect the general situation.

[HAYLUR] Let us move from the abstract concept of "relative peace" to reality.

[Arushanyan] Our soldiers know what relative peace means. Azerbaijan has always used ceasefires to mass reinforcements and military equipment and to regroup its forces. According to information gathered by the intelligence services of the NKR Defense Army, this time, too, Azerbaijan is preparing intensively, most probably for a new all-out offensive. Azerbaijan has never intended to resolve the Artsakh problem by political means. Indeed it has always refused to sign any documents on the peaceful resolution of the conflict.

[HAYLUR] And what is the significance of the present ceasefire?

[Arushanyan] It would be naive to think that the present ceasefire means that Azerbaijan really wants to end the war or to take steps which respect the rights of the winning side, that is the NKR. The truth is that the Azeri Army is substantially weakened.

[HAYLUR] Do you believe that?

[Arushanyan] Without any doubt. As you know, Azerbaijan mounted large-scale military operations beginning on 17 December 1993. That was the first serious military operation undertaken after Aliyev's assumption of power, and it ended, naturally, with the adversary's humiliating defeat. That could be considered as a test of Aliyev's leadership and the condition of the Azeri Army. Aliyev's policy in Azerbaijan failed because he failed to

fulfill his initial promises to the people. Those promises were mainly related to the recovery of the occupied territories.

[HAYLUR] Probably factors other than the combat-readiness of the NKR Army contributed to the defeat of Azerbaijan.

[Arushanyan] One of those factors is desertion which has assumed very large proportions in Azerbaijan. We have reliable information that entire enemy regiments ran from the battlefield. That is how the regiments from Barda, Mingechauri, Masalu and Gyanja on the Agdam front behaved. They abandoned the battlefield and fled in disorder.

The Azeri soldier has always known that he has nothing to lose on this ancient land. Furthermore one cannot rely on mercenaries.

[HAYLUR] Could the NKR Defense Army refuse to abide by the ceasefire agreement?

[Arushanyan] Yes, but we were guided by purely humanitarian considerations. The truth is that a disastrous situation has been created for the Azeri people. Azerbaijan would lose additional territories—at least one—if we were so inclined. That situation was avoided not by Aliyev but by the position of the supreme command of the NKR Defense Army. For Aliyev the objective of the ceasefire is to prolong his rule. We went along with the ceasefire agreement proving once again that the NKR is the winning side, not an aggressor. Otherwise we would not propose to return territories in exchange for status. Usually it is the winning side that imposes terms. We do not even want to do that. However the issue of NKR's status is of very special importance to us. [passage omitted]

[HAYLUR] What can you say about Aliyev's statement quoting remarks by foreign reporters and confirming that, compared to Artsakh's Army, the Azeri Army appears to be going on a picnic rather than to the battlefield?

[Arushanyan] As I already stated the enemy army is substantially weakened. Aliyev is aware of that more than anyone else. However, using propaganda they are misinforming not only the international public but their own people. For example, after each defeat on the battlefield the Azeri press and TV declare that the Armenians have been beaten. Later the people hear about the truth and surprisingly remain quiet. It is no secret that 100 of our soldiers can admirably fight against 1,000 enemy soldiers and win. But Azerbaijan continues to claim that the Karabakh forces lost hundreds of men while they lost only 10 to 15 men. Azerbaijan exploits even those victims. The Azeri people has been deceived and and continues to be exploited for the objectives of the government. I think that the time has come for the people to demand a reckoning from its government and ask: "Where are you taking us?" [passage omitted]

[HAYLUR] Are there any prisoners of war?

[Arushanyan] There are virtually no prisoners of war from the NKR side. There are only hostages from Artsakh. Most of those are civilians who were taken hostage during joint operations by the Azeri OMON and Soviet troops in Shahumyan and Martakert in 1992. The number of those hostages is less than 400. One difficulty is that it is impossible to have an equal exchange. Azerbaijan demands 10 of its people for each Artsakh resident it holds.

[HAYLUR] How well prepared is Artsakh to resist new attacks by the enemy?

[Arushanyan] The NKR Defense Army learned some lessons from the adversary's December offensive. We were not prepared for the scale of the offensive, and initially the Defense Army could not fight back the way it should. We have determined that the unprecedented nature of that operation was the result of not the adversary's organization but Aliyev's awareness of the real danger that he might lose power. Today a new offensive may begin at any moment. We are prepared for that. However, as a representative of the NKR Defense Army, I can assure you that this would be Azerbaijan's last offensive.

[HAYLUR] Does the NKR Army have any position with regard to mediation efforts for peace?

[Arushanyan] Our position with regard to various peace plans is that guarantees are essential. The most concrete of those is the deployment of separating forces. Our position is based on international practice and historical experience. I believe that permanent peace can be assured only by separating forces.

The four resolutions of the UN Security Council and CSCE documents refer to NKR as an Azeri territory. Those documents only talk about what status that territory should have. In contrast, the Russian plan does not contain a single line about NKR remaining part of Azerbaijan even though, like all the other plans, it calls for the return of occupied territories. The clarity of our objective of having our independence recognized is evidenced by the fact that we are prepared at this minute to return those territories in exchange for the recognition of NKR.

We stand firmly on our positions: Without the recognition of the independence of NKR, we will not give up a single handful of this soil which has been consecrated with the blood of numerous Armenians over the last 6 years.

Economic Ministry Plans New Energy Prices

944K2067C Baku VYSHKA in Russian 6 Aug 94 p 1

[Untitled report based on AZERTADZH and ASSA-IRADA dispatches, under the rubric "Day by Day"]

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[Text] The Azerbaijani Ministry of Economics has drafted a proposal for new prices for oil and other fuels. The KNKAR [expansion unidentified] proposes to set their maximum level, taking into account current expenses, at 21,000 manats per tonne. Judging by all indications, however, it is unlikely that this minimum [as published] will be approved.

CENTRAL ASIAN STATES

Military-Technical Cooperation With Turkey

944K2061A *Almaty KAZAKHSTANSKAYA PRAVDA*
in Russian 9 Aug 94 p 1

[KAZTAG report: "Kazakhstan and Turkey Are Embarking on the Path of Military-Technical Cooperation"]

[Text] On 8 August Defense Minister Sagadat Nurmagambetov held talks with Mehmet Gelhan, chief of Turkey's military department, who arrived in Almaty the day before on an official visit. An agreement on bilateral military-technical cooperation was signed on the results of the meeting.

The same day the Minister of Defense of Turkey and the persons accompanying him were received by Deputy Prime Minister Tulegen Zhukeyev.

Having told the guests about the situation in the Republic, he emphasized that the people of Kazakhstan aspire to strengthen their economic independence and pursue market reforms more decisively. The Republic is doing everything to strengthen regional security, develop businesslike cooperation between states, and establish lasting peace throughout the world. It is on these positions that Kazakhstan is building relations with its closest neighbors—Russia and China. Thus a number of agreements on joint activity in various spheres has been signed with the Russian Federation, and they are wholly in keeping with our country's national interests.

Armed conflicts are continuing in certain regions of the CIS, the deputy prime minister observed, which must be resolved by political methods, by way of negotiations. Of particular concern to everyone is the situation on the Tajik-Afghan border, which is the external border of countries of the Commonwealth. Its sure defense is the common concern of the CIS.

We are worried by the conflict in Nagornyy Karabakh, Tulegen Zhukeyev said. The leadership of Kazakhstan was participating in the earliest phase in a settlement of this problem. Now, however, any use of the peacekeeping force for an end to the bloody situation in the region is possible only under the aegis of the United Nations, the CSCE, and other international organizations.

It was with this in mind that President Nursultan Nazarbayev presented the initiative for the convening of a

conference on interaction and confidence-building measures in Asia. The deputy prime minister was highly appreciative of Turkey's support for this initiative.

Concerning relations between Kazakhstan and Turkey, the deputy prime minister observed that they have considerable potential for an expansion and intensification of partnership primarily in the trade and economic sphere. The legal basis for wide-ranging cooperation was laid by the signing between the two states of more than 30 agreements, which are now being put into practice. Their number has now been supplemented by agreements between the defense departments.

Mehmet Gelhan expressed Turkey's readiness to share with Kazakhstan experience accumulated in the course of its economic development. He said that Turkey is following closely the progress of the transformations in Kazakhstan and is sure that, thanks to the selfless labor of its people, the republic will very soon be a truly democratic and economically prosperous country.

Mehmet Gelhan laid a wreath at the Glory Memorial in the Park of the 28 Panfilov Guardsmen and visited the Mashinostroitelyy Zavod Stock Company and the Medeo highland sports ground.

Russian Border Troops Attacked by Tajik Opposition

94UM0533B *Moscow KRASNAYA ZVEZDA*
in Russian 5 Aug 94 p 3

[Report from RF Border Troops Press Bureau: "Tajik Opposition Begins Resolute Actions"]

[Text] On August 3, several armed opposition groups in Tajikistan attacked sub-units of Russian border troops in the Khorog axis. As a result, three Russian border troops were wounded, one of them fatally. Two Russian servicemen and 11 Tajik servicemen were captured and held hostage. The actions of the opposition gangs were stopped by retaliatory measures. All necessary measures are being taken to free the hostages.

The leadership of the Federal Border Service of Russia warned the so-called "boyeviki" that such actions only exacerbate an already difficult situation in the Republic, and announced that the border troops reserve the right to take all measures, including the most decisive ones, to stabilize the situation.

Tajikistan Ready To Send Peacekeepers to Abkhazia

944F1094A *Moscow NEZAVISIMAYA GAZETA*
in Russian 21 Jul 94 p 3

[Article by Oleg Panfilov: "Dushanbe Wants To Send Its Peacekeepers to Abkhazia—Even Though Military Commissariats Are Having Difficulty Gathering Conscripts Together"]

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[Text] At a meeting of the Council of Defense Ministers of Commonwealth Countries held this week in Moscow Tajikistan expressed a desire (it stood alone in this) to send a reinforced company to Abkhazia to participate in the peacekeeping operation. Judging from everything, this is a payback for Russian peacekeeping efforts in Tajikistan. Following that well known session of the Supreme Council in Khudzhande in November 1992, the Dushanbe regime attempted to independently solve the political and military problem by first taking Dushanbe with the help of a special MVD [Ministry of Internal Affairs] battalion formed in Uzbekistan, and then conducting an operation in the Garm group of rayons, once again with the help of Uzbek armed forces. After this, the military might of the Tajik government was exhausted, and it was then that the Treaty on Friendship, Cooperation and Mutual Assistance was hastily drafted and signed with Russia. The Collective Peacekeeping Forces (KMS), formed initially out of military subunits of Uzbekistan, Kazakhstan and Kyrgyzstan, assumed final control over the situation. Now only Russian and Uzbek forces, as well as two companies from Kyrgyzstan stationed in Gornyy Badakhshchan, are conducting the peacekeeping mission in Tajikistan. So-called self-defense forces—either remnants of the Popular Front or sympathetic oppositions such as, for example, in Gornyy Badakhshchan—are operating in many regions. Tajik armed forces per se are able to conduct operations in mountainous regions, but judging from the reaction of the Russian military, they are not even trusted to defend Dushanbe, which is patrolled by the Russian Federation's 201st Division.

The authorities concealed the situation in the Armed Forces for a long time. However, judging from the violent actions, in which recruits were pressed into service from dormitories and from the streets and drag-nets were set out, the situation remains tense. An article titled "Bugbear for Recruits?" describing the spring call-up of conscripts in Dushanbe's Oktyabrskiy Rayon was published in one of the recent issues of the newspaper VECHERNIY DUSHANBE. It related the story of Sergey Sh., a student at the vocational-technical school

who "was put under surveillance, taken from his classroom in the vocational-technical school, and sent without any warning to the family to Garmskiy Rayon—one of the hottest spots in the republic." Sergey's mother filed in court against the Ministry of Defense. (The parents of conscripts troubled by the actions of the military commissariats are taking their complaints not only to republican authorities but also to diplomatic missions.) The actions of the military commissariat were called unlawful at a meeting of the Dushanbe city draft board. The newspaper also relates numerous cases of bribery, in which parents serving in high positions have used their pull to either free their sons from service or find "cushy" jobs for them. Still, the article's author feels that all is not lost, and that wives' councils, veterans' councils and other public organizations need to be encouraged to propagandize army service.

Report Profiles Uzbekistan's Armed Forces

944F1039B Moscow NEZAVISIMAYA GAZETA
in Russian 15 Jul 94 p 3

[NEZAVISIMAYA GAZETA report: "The Armed Forces of the Republic of Uzbekistan: NEZAVISIMAYA GAZETA Begins To Acquaint Its Readers With the CIS Republics"]

[Text] Composition: Ground forces, air force, air defense, special purpose troops, and National Guard.

Arms: tanks—280, aircraft—265, helicopters—24.

Leadership composition: Minister of defense—Lieutenant General Rustam Akhmedov. Born 10 November 1943. In 1965 was graduated from the Tashkent Tank Command School. In 1985—the Military Academy for Armored Troops. In the Soviet Army he served in various command posts. Chief of the General Staff of the Ministry of Defense of Uzbekistan—Major General Aleksandr Sarganov. Student of the Military Academy imeni M. V. Frunze. The training of officer personnel is carried out in military-educational institutions of the Uzbek Army, Russia, and a number of countries of the far abroad, in particular in Turkey.

DEFENSE INDUSTRY

Glukhikh: Defense Industry in 1994

94UM0541A Moscow KONVERSIYA in Russian No 4, 1994 pp 3-8

[Article by Viktor Konstantinovich Glukhikh of the State Committee of the Russian Federation for the Defense Sectors of Industry under the rubric "Politics, Economics": "The Defense Industry of Russia: The Situation and Tasks for 1994"]

[Text] The State Committee of the Russian Federation for the Defense Sectors of Industry (Goskomoboronprom) faces the problem of devising paramount measures for 1994 to stabilize the activity of the defense complex, in connection with the tasks that were posed in the message of the President of the Russian Federation to the Federal Assembly and at an expanded session of the government of the Russian Federation that was held on March 4.

While understanding the difficulties of this hard period of economic reforms, we are aware at the same time of the responsibility for preserving what is progressive, in a scientific-and-technical and industrial regard, in the defense complex of Russia.

I would note the following in describing the state of affairs in the defense industry.

The defense complex today is more than 2,000 enterprises and organizations, where more than four million people work.

The decline in production in the defense sectors in 1993 was 19.6 percent compared to 1992. The drop in production volumes increased in December 1993 to 28.2 percent, in January 1994 to 33.5 percent and in February 1994 to 37.8 percent, compared to the corresponding months of the prior years.

The production volume of armaments and military hardware dropped by 78.1 percent over 1991-93, while capital investment dropped by half, the amount of military NIOKR [scientific research and experimental design] decreased, and exports of military hardware declined.

The proportionate share of military products in the overall volume of output was 22 percent in 1993.

The state defense order for 1993 provided for the utilization of only 10—15 percent of production capacity for certain types of arms (V) and military hardware (VT). The order was below the minimum allowable level for many types of items, which ultimately leads to the degradation and loss of high-technology types of production.

This pertains first and foremost to the output of aircraft, submarines, surface combat ships and electronic items. The production of combat aircraft declined by 3.8 times

in 1993 compared to 1991, armored vehicles by more than 5 times, ordnance by 4.5 times and electronic items by 5.4 times.

The absence of orders for finish items is leading to the disintegration of cooperative ties. The Perm Inkar AO [joint-stock company], specializing in the output of systems for the automatic control of aircraft engines for the Su-25, Su-27 and MiG-31 aircraft, for instance, had no orders at all last year.

The NIIs [scientific-research institutes] and KBs [design bureaus] were in the gravest financial and economic situation in 1993. One can speak today of an actually occurring process of the loss of unique high technologies in gyroscopy, high-power radar, SHF instruments, electro-optics and the area of mixed solid fuels. And this list could unfortunately go on.

The debts of the Ministry of Defense for payments for products manufactured within the context of the state order totaled more than 878 billion rubles by the start of this year, and only 48 percent of the funds envisaged by the budget have been allocated to pay for military NIOKR. The already grave financial situation of the enterprises was further aggravated by the disarray in the financial system of the state, the late payment of conversion credits and subsidies, mutual non-payments and the like.

The tax system of the Russian Federation does not support the producers of goods; 95 kopecks of each ruble of profits are paid by the enterprises in taxes. The prevailing taxes and tax rates are in fact directed only against the producers of goods.

The departure of the most active and best qualified portion of the workers is continuing under the conditions of a decline in production. The number of workers in the Goskomoboronprom system was 4,487,000 people in December of 1993, or 86.9 percent of that in 1992, including 3,673,600 people in production (87.2 percent) and 813,500 people in science (85.8 percent).

Concealed unemployment is being manifested in the conversion of workers to a regimen of partial work weeks and in granting them leave without pay or with partial pay. Many enterprises and types of production were operating under these conditions in February and March, and 26 enterprises were shut down entirely.

One consequence of that is that wages in the defense sectors are in last place in industry (1.5 times lower than the average for industry). The average wage in January of 1994 was thus 134,000 rubles across Russia, with 139,000 in industry, 98,000 in machine building and 91,000 in the defense sectors.

All of the attempts by Goskomoboronprom to obtain a non-taxable minimum of eight times the minimum wage for enterprises fulfilling the state defense order in accordance with Edict No. 1850 of the President of Russia of

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6 November 1993 have met with harsh opposition and have simply not been fulfilled by the Ministry of Finance of the Russian Federation.

The state defense order for 1993 has been fulfilled, but at what cost! Some 384 (47.9 percent) of the 802 items in the state order were corrected at the end of the year (downward, naturally).

A decline occurred in the amount of deliveries by product types in the state order, while the list of deliveries for the MVES [Ministry of Foreign Economic Ties] went unused. The residual manufactured hardware at individual enterprises was considerable. Serious expenditures are required to maintain them in a normal state. The search for ways to sell that hardware must be made more vigorous in conjunction with Rosvooruzheniye, the Ministry of Economics and the Ministry of Defense of Russia.

The situation with the state order for 1994 is even more critical. Only 35 percent of the contracts submitted by customers had been concluded as of March 15, and most of those with disagreements.

The patience of the arms producers has run dry. A market reaction by the enterprises to the uncertainties with budgetary appropriations for defense is beginning to be manifested, and is naturally also having an effect on the remaining indebtedness of the Ministry of Defense of Russia for hardware already manufactured and NIOKR already performed, the lack of advances for 1994 and the lack of any concessions whatsoever for the fulfillment of the state defense order.

The amounts of budgetary appropriations for the procurement of V and VT of 5.5 trillion rubles as proposed by the Ministry of Finance of Russia for 1994 (instead of the projected 28.3 trillion), and for the performance of NIOKR for military purposes in the amount of 3.3 trillion rubles (instead of 8.8 trillion), will lead, in the opinion of the Ministry of Defense of Russia, to the fact that the indicated funds will be sufficient only for the payment of debts for products supplied in 1993 and the payment of products already ordered and manufactured in January—March of the current year, as well as the preservation of ships and vessels for the Navy that are under construction or repair and the financing of operations to perform warranty oversight, ensure nuclear safety and resolve the paramount tasks of servicing the V and VT. And that signifies a further degradation of the mighty potential of the defense complex.

We hope that the government and the State Duma will take these cautions into account.

The problems of preserving our scientific and technical potential, pursuing a truly effective structural restructuring and finding internal reserves gain particular urgency in this regard.

The conversion programs are proving difficult to realize. Favorable credits and subsidies were allocated to 570

enterprises being converted in 1993; they did not reach them in the full amounts, and by and large only in the second half of the year. Additional capacity was nonetheless allocated for the output of products for 678 billion rubles, and the output of more than 500 types of goods and articles was assimilated and begun in production.

The scope of privatization is expanding in the defense sectors. Some 642 enterprises, *i.e.* more than 30 percent of the total number, had received authorization for privatization by the start of the year. This process is proceeding particularly vigorously in the aviation, shipbuilding and electronics industries, as well as in the armaments industry. We are assuming that 28—30 percent of the overall number of enterprises and organizations will be relegated to the state form of ownership by the beginning of 1995, with 60—65 percent under mixed forms of ownership.

We have assisted the organization of joint-stock industrial companies and financial-industry groups in fulfilling the decision of the government of Russia. The Vypel international joint-stock company, the Energiya NPO [Scientific-Production Association] Russian holding company, the Leninet holding company, the Antey joint-stock industrial company and the Urals Plants financial and industrial group, among others, are already in operation. The Tupolev joint-stock industrial companies and the Ilyushin corporation, among others, are being formed. Their number will increase to 20 in 1994, according to predicted estimates. The real participation of the private sector in such a specific sphere of activity as the production of V and VT is thereby expanding.

A new form of interaction between Goskomoboronprom and joint-stock companies, companies and corporations regardless of their organizational and legal norms has been devised in the course of the creation of joint-stock enterprises and organizations of the defense sectors of industry, for the purpose of developing and producing V and VT and preparing and realizing conversion programs. The conclusion of the appropriate agreements on an equal footing is what we have in mind here.

Touching briefly on foreign economic activity, exports increased somewhat in 1993 and totaled 2.6 billion American dollars (106 percent of 1992), including 2.15 dollars of V and VT (111.7 percent of 1992).

It should be noted that the quantity of countries importing our weapons declined from 47 in 1990 to 26 in 1993. Deliveries of products "off the shelf," *i.e.* manufactured back in 1991 and 1992, predominated in the overall volume of military exports last year as well. The share of export products totaled only 5.2 percent of the volume of V and VT produced in 1993.

The analogous indicator for civilian products and consumer goods, however, was even lower at 1.7 percent.

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These correlations should be altered. The task is to raise the share of export products to 30—35 percent.

Goskomoboronprom undertook steps, under the difficult conditions of 1993, to accelerate the integration of defense and civilian production, create joint-stock enterprises, preserve the most valuable elements of the scientific and production potential of the sectors, organize operations in programmatic fashion, uncover and utilize enterprises and regions, and develop exports.

A number of important resolutions and edicts of the President of the Russian Federation and government decrees and directives were prepared and adopted based on the proposals of Goskomoboronprom and with its participation. The "State Program for the Conversion of the Defense Industry for 1992-95" was approved by the government of the Russian Federation, and is part of the Federal Program for the Structural Restructuring of the Economy of Russia; the "Fundamental Provisions of the Military Doctrine of the Russian Federation" was approved by edict of the President of the Russian Federation, and the section "Military-Technical and Economic Fundamentals" defines the aims, directions and priorities of military-technical policy for the period to the year 2000; two sessions of the Security Council were held under the chairmanship of the President of the Russian Federation with the agenda, "The Defense-Industrial Potential of the Russian Federation" and "Programs for the Development and Production of Advanced Types of Armaments and Military Hardware," which approved the basic guidelines for the development and creation of advanced armaments and military hardware through the year 2000, as well as defined the necessary supporting programs; measures to retain the core of the defense complex under federal ownership and basic guidelines for improving the methods of privatization and regulating the activity of joint-stock enterprises with a state share of authorized capital were defined by the edict of the President of the Russian Federation "Specific Features of Privatization and Additional Measures to Regulate the Activity of Enterprises in the Defense Sectors of Industry"; the decree of the government of the Russian Federation "Enterprises and Organizations of the Defense Sectors of Industry Not Subject to Privatization in 1993-95, As Well As Transformed Into Joint-Stock Companies," defined the procedure and terms for the creation of joint-stock enterprises in the defense complex; the edict of the President of the Russian Federation "Stabilization of the Economic Situation of Enterprises and Organizations of the Defense Industry and Measures to Support the State Defense Order" was adopted; the government adopted the decree "Paramount Steps to Support the Activity of State Scientific Centers"; the trilateral rate agreement was signed for 1994 among the Association of Russian Trade Unions of Defense Sectors of Industry, the State Committee of the Russian Federation for the Defense Sectors of Industry and the Ministry of Labor of the Russian Federation, and was coordinated with First

Deputy Chairman of the Government of the Russian Federation O.N. Soskovets, and much more.

There is no doubt that the principal and primary task of the enterprises and organizations that constitute the heart of the country's defense-industrial potential is unalterable—the creation of V and VT at a level that is not inferior to foreign models, and equipping our armed forces and other troops with them in the necessary quantities and at the required times. This task can be resolved properly today only in the event that equal conditions are created for the complex (or measures are realized to compensate for the unprofitability of military products). We should otherwise find answers that are suitable to the rules of the game, and place our focus on survival.

In addressing the basic theme of the President's message—the theme of strengthening the Russian state—I would like to emphasize that we are fully aware of the important role that is relegated to the scientific-and-technical and production potential of our sectors in ensuring the defense and economic security of our country. The efforts of Goskomoboronprom, legislative authorities and the government must be united with the desire and ability to work of the directors' corps of the defense enterprises and their workforce in order to accomplish this task.

What are the chief reserves of the defense industry that, in our opinion, could facilitate a way out of the crisis situation, and the conditions under which that will be possible?

The role of Goskomoboronprom. Its tasks and practical activity today are directed toward devising and in fact realizing an industrial policy in the defense sectors, aiming at those priorities that meet the interests of national security.

The implementation of profound structural maneuvering and the institution of a mechanism for the efficient utilization of unclaimed capacity and military high technology for the creation of market-competitive types of civilian products is impossible without a carefully thought-out policy of reforming the defense complex and the coordinating role that is entrusted to Goskomoboronprom therein.

The basic principles and postulates of an industrial policy in the sectors are set forth in a conceptual framework we have developed. It has been passed on to all of the enterprises. I will mention its most important provisions, insofar as they have been taken into account in the plan of action for 1994:

—the creation of accelerated scientific work in progress, and the development and production of technically advanced and highly efficient systems and models of V and VT. A military-technical and technological lag behind the developed nations of the world must not be

permitted here, along with the simultaneous optimization of both the types of resources being created and the expenditures for their production;

- the integration of military and civilian production, with an orientation toward the widespread utilization of "dual-application" technologies. The formation of mobilization potential on contemporary principles (using capacity freed up and in reserve for the output of market-competitive products);
- the restoration and expansion of cooperative ties with the defense complexes of the CIS member countries, and improvement of interaction with the regions of Russia;
- the maximum development of the export capabilities of the defense sectors.

Work with the regions is an important area of our policy and a substantial reserve for efficiency.

The role of the regions is growing sharply in the solution of the problems of the survival and structural restructuring of the defense enterprises, especially the regions with concentrated disposition of the defense industry—Moscow, St. Petersburg, Tula, the Urals etc.

First, no one can be more concerned with the problem of employment or bear greater responsibility for the stability of the social climate in the local areas than the regional administration.

Second, it is namely the regions that feel directly the actual climate of the consumer market and the demand for equipment and goods, and encounter directly the problems of the pollution of the environment. This allows them to participate in a topical and interested manner in solving the problems of utilizing the capacity being converted and the ecological safety of production.

The regions have independent budgets today, and they are also the owners of property. This allows them not only to invest their own funds in the defense enterprises, actively facilitating their structural restructuring with a regard for the interests of the region, but also to attract the funds of commercial structures and foreign investments, acting as guarantor of investor interests therein.

The operating practices of Goskomoboronprom include reaching agreements with the heads of the regional administrations on collaboration in the realm of conversion, and structural and investment policy. Goskomoboronprom has already reached such agreements with seven regions, and is preparing eight more. This is just one example of such collaboration.

The major "Conversion for the City" regional program has been developed in close interaction with the government of Moscow. More than 1,000 projects with the industrial assimilation and bringing to consumers of the results of completed NIOKR for 396 projects by 1994-95 are represented in this program. Its implementation will make it possible to preserve 15,000 jobs in the sphere of

defense and, as a consequence, approximately 65,000 jobs in production. The government of Moscow allocated 46.2 billion rubles from the city budget for NIOKR in 1994. Goskomoboronprom has provided budgetary funding in the same amount. Funds will be jointly allocated for the realization of the projects.

I think this experience should be developed. Tax regulators could also be more broadly utilized (taxes on profits can not only be increased by 25 percent, but also reduced—right down to complete elimination—in the local budgets).

Despite all of the difficulties of the current period that have made the problem of the "survival" of the enterprises and "investment hunger" more acute, it should be remembered that the stability and efficiency of the defense complex will ultimately depend on how well we are able to implement the **structural restructuring of production**, that is:

- a review of the structure of the subject-area specializations of production, with the aim of optimizing the concentration and efficient utilization of production, human and material resources to provide for the output of products with minimal expenditures, along with resource conservation and ecological safety;
- the curtailment of economically unpromising types of production and the realization of investment, including conversion, programs and projects to put into production new and scientifically sophisticated items that provide for the accomplishment of the priority federal and regional socio-economic tasks;
- the preservation and development of mobilization capacity, but only provided its utilization is assured through the production of civilian products that are technologically compatible with defense products.

The transformation of forms of ownership—**privatization and the creation of joint-stock enterprises**, demonopolization and the creation of a competitive environment—along with the reform of state enterprises are an important element of structural policy. The President's message stated directly that these areas of reform should be the leading ones.

We must take into account the on-going privatization of enterprises in the defense complex, its negative aspects that are revealed and the results in a topical manner when studying the drafts for a number of pieces of legislation, such as the laws "The State Defense Enterprise," "State Scientific Centers in the Areas of Armaments and Military Hardware," "The State Defense Order," "The Recovery of Armaments and Military Hardware," "Mobilization Preparation in the Russian Federation" and a number of others. We must also prepare proposals to supplement and clarify some of the prevailing legislation.

Investment funds would seem able to play a substantial role in the development of a market infrastructure.

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Goskomoboronprom already has agreements on joint investment policy with such funds as the VPK Fund, Konversiya-Germes, the Naval Voucher Fund and the Investitsiya RF concern. I think that work with those funds after the voucher stage of privatization will create real preconditions for investment in the development of production, both in the interests of enterprises and in the interests of outside shareholders. The question of the transfer of the parcels of shares that belong to the state to Goskomoboronprom in order to increase the controllability of defense production requires urgent resolution at the same time.

We consider one of our primary areas of industrial policy and the structural restructuring of the defense sectors to be **the creation of large and market-competitive firms on the basis of financial-industrial groups (FPG)**. It is namely they, in our opinion, that will help to make industrial production more active, preserve the field structure of the enterprises and restore lost ties among the subjects of business activity. Matters today are coming to the fact that many enterprises, even small ones but in a monopoly position, are curtailing the production of constituent items, leading to a disruption of state military orders. We are encountering this situation in many regions of Russia, and not only in the CIS countries.

Even though the statute on the FPGs and the procedure for creating them were developed without regard for the specific nature of the defense enterprises, we consider the path to the creation of FPGs to be wide open, and we must assimilate this promising area more quickly.

The curtailment of unpromising types of production is an important aspect of a selective structural policy. This question is gaining particular topicality in connection with the enactment of the Law of the Russian Federation "The Insolvency (Bankruptcy) of Enterprises" in 1993.

The fact that state enterprises that are filling the state defense order and do not receive the funds to cover that order on time and in full, including manufactured on time, could end up insolvent and in a court of arbitration elicits perplexity from the standpoint of common sense.

Goskomoboronprom is concerned about the situation that is taking shape, and is taking the necessary steps to prevent possible bankruptcies of defense enterprises.

An econometric model and the program complex to realize it were created over the course of 1993 by the economic institutes of the sector, for financial and economic monitoring and forecast evaluations of the financial status of enterprises under the effects of various factors.

The mechanism for deeming enterprises bankrupt in accordance with the Law of the Russian Federation "The Insolvency of Enterprises" requires an accounting for specific sector features, and we are counting on trying out that mechanism in close contact with the Federal Bankruptcy Agency.

A strange situation is arising in reality under conditions of the prevailing tax policy, financial and credit mechanism, the systematic delays in settlements, the failure to issue conversion credits in timely fashion and the low level of advance payments on the part of the customer. The financial situation and ability to pay of enterprises are not conditioned by their own actions. They are becoming, figuratively speaking, "kamikazes" filling the state defense order.

The enterprises are proving to be debtors of each other, debtors of banks and debtors to the local and state budgets. Taking into account the common non-acceptance payment for electric power and thermal power carriers, the enterprises are forced to withhold the payment of wages and economize on the upkeep of social facilities. All of this is creating a real foundation for social upheavals and engendering a host of appeals of labor collectives, both to the government and to the president.

Estimates show that not more than 30 percent of the enterprises—among which both the joint-stock and the state enterprises were in virtually the same condition—were solvent according to prevailing standards as of the end of 1993. The enterprises were forced to pay more than 400 billion rubles to commercial banks for credit for the defense order out of their own profits in 1993. Profits from civilian products lines also went to pay this.

The government has finally made the decision (Directive No. 351-r of 21 Mar 94) to open separate accounts for enterprises and organizations to perform operations connected with advance payments for work for the state defense order and payments for raw materials and constituent items.

We hope that the government will also respond to other proposals we have made—reducing the penalties for overdue payments, writing off borrowed indebtedness, altering the procedure for the taxation of mobilization capacity etc.

The problems of price formation for military products gained particular urgency in 1993 owing to limitations on budgetary appropriations, as well as the absence of a standards base governing the processes of price formation.

Fundamental differences with customers have arisen on questions of compensation for the cost of materials and constituent items procured, the time frames for the coordination of prices, advance payments and payments for products shipped.

The prices for many items are reduced by the customer. The enterprises receive profits lower than standard, or else suffer losses. The profitability of military products was 4.5 percent at the Ishimbay Transmash plant, 7.4 percent at the Volga Mechanical Plant and 8.3 percent at the Podolskiy Mechanical Plant state enterprise.

The definite resolution of this problem was envisaged by Decree No. 1850 of the President of 6 November 1993, which posed the task of establishing a fixed level of profitability by types of products when filling the state defense order to ensure the creation of a financial base for the production, scientific-and-technical and social development of the enterprises filling the state order. The resolution has not yet been adopted after repeated attempts at coordination of our proposals with the Ministry of Economics.

The unprofitability and low profitability of civilian products at many enterprises is conditioned, to a considerable extent, by the high level of overhead expenses for defense production and the maintenance of mobilization capacity, and price limitations owing to the poor ability of consumers to pay. The way of reducing the expenditures is obvious—raising the productivity of labor and product quality, economizing resources, and instituting standards that guarantee the profitability of military production.

The prevailing system of price formation requires considerable refinement, both in the area of improving the procedure for writing off expenditures and the computation of cost, and in the area of the formation of the profits necessary for the development of the enterprises.

We are insisting on devising new approaches in the state resolution of the **problems of mobilization readiness**, with the widespread utilization of flexible types of production, dual technologies and a departure from outmoded principles of accumulating and "freezing" surplus capacity.

This conceptual model, however, still needs to be realized, and we are still encountering the fact that the mobilization capabilities at many enterprises are actually a fiction. One example—the Krasnogor Plant imeni Zverev should be receiving 40 percent of its constituent items from 33 supplier plants located in the seven CIS countries. The enterprise has not received confirmation for the supply of constituent items from those countries. The Kurgan Machinery Plant association has confirmed delivery of only 16 of 214 types of constituent items.

The fact that the refitting of capacity is proceeding with an irreversible removal of a significant portion of specialized equipment, and its actual loss or sale in the course of conversion of military product lines, is also eliciting concern.

The question of budgetary financing of expenditures for the upkeep of mobilization capacity and skilled personnel is also becoming acute in connection with the changes in the forms of ownership, the formation of joint-stock companies and the privatization of the defense enterprises. The funds allocated by the Ministry of Economics of Russia for these purposes do not exceed 12 percent of those required.

Order must be instilled in this neglected area. This is one of the paramount tasks of the Ministry of Economics, Ministry of Defense, Goskomoboronprom and the enterprises.

Export potential is one of the chief economic reserves of the defense complex today. The income of enterprises from exports is becoming a very important source of funds for the pursuit of structural restructuring of production, the realization of conversion projects and the stabilization of economic activity.

First, the export of V and VT as the most market-competitive of our products. Today we can better imagine what hardware should be offered for sale—the buyers are interested in the most modern models. We also see that it is difficult to move into world markets if the problems of supporting the hardware with spare parts, servicing, repairs and upgrading of the armaments are not resolved.

We feel that a considerable expansion of the independence of developer enterprises and producers in the foreign markets, and the creation of the necessary organizational and legal conditions for it, are an important reserve to make military exports more active.

The adoption of the Law of the Russian Federation "Military-Technical Collaboration," as well as the immediate adoption of the government decree "Granting to Enterprises the Right to Participate in Military-Technical Collaboration of the Russian Federation With Foreign Countries," are extremely necessary.

There are orders for more than 100 billion rubles (in domestic prices as of 1 July 1993) for exports to the CIS countries, and the opportunities for our enterprises to fill those orders did not come from the MVES [Ministry of Foreign Economic Ties] in 1993.

The same situation is also taking shape in 1994. The government was entrusted with reaching an agreement with the enterprises for deliveries in 1994 within a month's time in December of last year, but the newly created Rosvooruzheniye company has not concluded a single contract in more than three months. The enterprises, at the same time, are not allowed to sell their products directly.

It should also be recalled that the market of the CIS countries should be a priority for us, both for military products (with a regard for the fact that there is a considerable quantity of weaponry remaining there that was created on the basis of Soviet arms systems and Soviet standards) and for civilian ones (Russian goods are entirely competitive with foreign goods there).

More than ¾ of the overall volume of products put out by the defense sector is civilian products, but only 1.7 percent are supplied for export. Work to increase sharply the share of exports should become a priority. Goskomoboronprom has started preparing a program to

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develop exports of civilian products and investment collaboration for the enterprises in the defense sector.

There are already 12 intergovernmental agreements in force with the CIS countries, and a series of agreements have been reached with the countries of the distant abroad, which is expanding the economic preconditions for interaction. I think, however, that this is much too little: we must move, as we have emphasized repeatedly, to participation in projects that are backed up by joint capital, and the creation of multinational companies and financial-industrial groups.

We must, at the same time, achieve the abolition of a series of discriminatory restrictions in the world market, and protect the interests of our industry in the formation of the mechanisms of international monitoring of weapons and technology exports.

I feel it necessary to dwell, in conclusion, on two other issues. First, the creation of a legislative base that would suitably reflect the place and role of the defense industry in the national economy of Russia.

It is worth recalling that in the areas that pertain to the activity of the defense sector of industry, there were several fundamental pieces of draft legislation as early as 1992 that were devised not only conceptually, but on a substantive basis as well. Only one of them, however—on conversion—was brought to completion and approved by legislators.

The need for standards and legal support is considerably broader today. Goskomoboronprom has developed a plan for primary draft legislation work for 1994, containing more than 20 pieces of legislation requiring both refinement and alteration (with a regard for the specific nature of the defense sectors) and the development of new ones. A list of them is indicated in the "Plan of Action of Goskomoboronprom for 1994."

Second, we have begun, at the authorization of the Security Council and the government, the development of a program of development of defense-industry potential for the period to the year 2000 and basic guidelines to the year 2010.

This work is very important for the main directorates, leading scientific-research institutes and design bureaus for the various types of hardware, and the technological, planning and economics institutes. The draft program should be submitted to the government in June.

Such is the basic grounding of the "Plan of Action of Goskomoboronprom for 1994," whose 16 sections reveal the main directions of the joint efforts of Goskomoboronprom and the executives of defense enterprises and organizations, and the concrete steps to adapt the defense industry to the conditions of a market economy. The tactics and strategy for development, priorities, economic and social problems and the problems of personnel support, which require particular attention in the prevailing situation, are reflected as well.

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Thefts From, Protection of Nuclear Facilities

94UM0537A Moscow KRASNAYA ZVEZDA in Russian
2 Aug 94 p 2

[Article by KRASNAYA ZVEZDA correspondent Mikhail Rebrov under the rubric "Point of View": "A Terrorist With an Atomic Bomb in His Bosom"]

[Text] A group of unknowns took the director of nuclear-power plant "X" hostage. Keeping the sights of semiautomatic rifles trained on the executive's face, the terrorists penetrated the guard, onto the territory of the strictly regulated facility. From there the leader, threatening to blow up the plant, began dictating his will to the president and the entire government....

I can predict the reaction: "What a dreamer, Rebrov! He made it up...." But do not be in such a hurry!

Mankind is understanding the universe and the secrets of the atom. He has learned how to protect himself against epidemics. He predicts earthquakes and can save himself from the fury of volcanos. But how can man protect himself from man? In Moscow—and not just there—the streets empty with the onset of darkness. Any passerby on any heavily peopled square can expect a bullet or a knife; someone tosses a grenade; an explosive goes off, all of this even in broad daylight. My God, what kind of country have we become?! What kind of people are we, when terrorism has become a daily occurrence and a human life means nothing? Terrible times. Terrible if only because we cannot (or perhaps we do not want to) rid ourselves of many illusions about "humanizing" punishment. And we are paying for this.

I do not want to enter into a discussion about existing laws, legal norms or the "consistency" of an impossibly obsolete criminal code or the "quality" of judicial processes. This is a separate subject. I merely want to cite a few facts about a different kind of crime. The reader can draw his own conclusions.

"An attempt to sell 3 kilograms of a stolen radioactive material, a dioxide of highly enriched uranium, was thwarted on the banks of the Neva. Who needed that, and for what? We still do not have an answer to these questions. We know only that workers with the St. Petersburg Directorate of the Federal Counterintelligence Service spotted and arrested the "dealers in death" in June of this year, and the theft of the strategic raw material was committed almost in the open.

"Eight people from Volgograd and the adjacent city of Volzhskiy intended to sell two containers of radioactive Cesium-137 on the "black market"....

"In the city of Artem, a suburb of Vladivostok, three metal containers of radioactive substance were stolen from a reinforced concrete plant....

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"A group of six people was arrested while attempting to remove a container with six ampules of a powerful radioactive substance worth 1.2 million dollars through the port of Odessa...."

We know of cases of the theft of uranium from the Chepetskiy Machinery Plant (city of Glazov), the All-Union Scientific Research Institute of Inorganic Chemistry and the Kurchatov Institute. Radioactive accidents occur during the transportation of dangerous materials, and criminal negligence frequently results in "radiation spots" in populated areas (recall Aktyubinsk and Kursk). Recently an extremely dangerous kind of entrepreneurship has come into being: underground companies have begun appearing which engage in the illegal removal and "storage" of radioactive waste....

A dismal picture. Alarming. And this is only a part of the glaring facts discussed in briefings, which are to be found in diverse forms in press reports and heard in radio and television programs.

Thefts, smuggling, "radioactive business...." One cannot say that this is a narrowly national phenomenon. Unfortunately, it is assuming a planetary scale. According to the Associated Press, an effort has been made in the USA to forecast the development of terrorist activity up to the year 2010. Who are they, these potential extremists? What weapons could they use? When? Where? Against whom? The findings were depressing. Incidentally, this is what the ATLANTIC MONTHLY had to say about us:

"There is unequivocal proof that organized crime in the former Soviet Union has access to nuclear stocks for purposes of earning enormous profits."

There are probably motives other than a desire for gain, however. A former worker in the U.S. State Department Paul Goby said in one interview: "I am convinced that if I had 25 million dollars, I could easily acquire a warhead and the launching code there (in our country—M.R.)." This sounds far-fetched, in the style of loud diplomatic commentary, but we should listen to the voices of another kind of experts. I have in mind FBI Director Louis Free. His thoughts cannot but alarm one. "In the states of Eastern Europe (the chief of the Federal Bureau of Investigation preferred not to single out Russia—M.R.) there are many places where one can acquire radioactive substances. The level of radioactivity is not adequate to produce a nuclear bomb, but it is certainly enough to produce a powerful explosive device."

I am not even referring to the fact that this same highly-enriched uranium is extremely valuable on the "back market," that it can "flow" to those extremist regimes which are prepared not to bargain and that our state secrets go along with the special radioactive substances. Any fool can understand that, as they say. The problem has another real aspect which should not escape attention. It involves more than just the fact that hired

killings and criminal settlements-up with guns which occur now here, now there, can be accomplished with another, silent, weapon. We must not reach the point at which all of us, both the politicians and the privates, so to speak, are hostages of fear to a mafia blackmailing us with the atomic bomb.

This is not an imaginary danger. It is not a "working hypothesis" but an objective possibility. I recall the recent incident with V. Kalunov, director of the Kartontara joint-stock company. A powerful radioactive source was found in a chair in his office, which caused the businessman's death. I believe this is yet another argument for the gloomy forecast.

If the confusion and commotion which have become ordinary elements reign in the country, if the maximum fine for indecision on the storage of radioactive substances is 500,000 rubles, if monitoring the observance of established standards for inventorying and storing "radioactive material" is sometimes simply nonexistent and no one can guarantee that the balance coincides with the amount used at warehouses, in laboratories and institutes, and at production units, then....

I will not be revealing a secret if I say that every Russian nuclear electric power plant has a federal counterintelligence service, which is required to know everything, to promptly gather information on attempts being made on the plant's security. What is surprising is that strict screening of those wanting jobs at a nuclear power plant is not defined by legal norms, they are not tested for their psychological state, and their trustworthiness is not verified (as is done throughout the world). The Law on Nuclear Energy has still not been ratified, although the draft was presented to the legislators back in 1987. Departmental strife killed the idea of unified and independent nuclear control. And is this not why "unmonitored" uranium, cesium and strontium roam about Russia, cross the "semitransparent" borders and become easy prey for criminal groups?

If not today, then tomorrow not just Russia but the entire world will face the tragic consequences of the threat, perhaps the most significant in the entire period of the existence of human civilization. We need to think about that. Today. Tomorrow will be too late.

Visit to Secret Tekhnomash Facility

94UM05394 Moscow KRASNAYA ZVEZDA in Russian
3 Aug 94 p 2

[Article by Mikhail Rebrov, "There Won't Be Another... Inside a Secret Company"]

[Text] Several years ago, I tried to visit a company, Tekhnomash, but I received a polite refusal from the "service of the regime." Today the once-secret enterprise has opened its doors. I called the director, and he gave his consent to a meeting, although not without hesitation, and made an appointment.

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In the large office of its "master" I noted a portrait of S.P. Korolev and several models of satellites. Our talk was interrupted by telephone calls and the arrival of tardy associates with urgent papers. Finally came a long-awaited pause. This after my subject asked his assistant: "Don't put anyone through, say I went..." He must have wanted to say where, but changed his mind: "Just out!"

He is of medium height, heavy-set, quick in his movements, now and again adjusting his glasses. He began unexpectedly: "In the world everything is like this: either truth or deception."

Personal data. Vyacheslav Vasil'yevich Bulavkin, 1940, engineer-technician, married, three children. What else? He was born in the village of Arkhangelsk, which is in the South Urals, in Bashkir territory. His father and mother, grandfather and great-grandfather were Russian.

Of himself he says: "A peasant's son," although his father was used to all work: he was a master lumberjack, worked in a brick factory and as a carpenter, built roads. He returned from the war an invalid, without hands. He had hopes for his son, Vasil'y Petrovich. With nearly four years of parish school behind him, he dreamt that Slavka would learn and get a good education. Of himself he thought: "Who taught me? The war, the postwar years? Should I be sorry that my son doesn't have his father's experience? Should I want the same for him? Never! It is terrible experience, I didn't raise my children for that."

Aviation was developing fast in the 50s, switching over to jet power. Bulavkin junior's only dream was the Ufa Aviation Institute. He passed the entrance examinations with a solid passing score, and rushed home to gladden the "old folks," but then did not report for classes on September 1. The reason, as he himself puts it, was a "bad" one. From his home village to the railroad was forty kilometers, all of it on foot. So he was a day late. He was afraid they would expel him, and that would be the end of everything. The dean understood the situation.

He began with the Schvetsov motors, the ASch-62 and ASch-82. Four were selected from the third year for the "jet department," where they studied the engines for "MiGs," and he defended his dissertation on engines for the second stage of a combat missile.

At the Orenburg Machine-Building Plant he went through all the stages of a "techy" career: from ordinary engineer to chief technician. He was appointed chief of the technical office, and worked on special devices for testing the new equipment. This equipment changed quickly over the years. One after the other: the La-17M and La-17MM aircraft-targets of the Lavochkin design; Chelomey's cruise missiles with the mysterious names of "Malakhit," "Granit," "Bazalt"; the "items" of Yangel with the numerical designations 8K63 and 8K84.

He was daring, impatient, cocky. He had a talent for galvanizing his people, not allowing them to be indifferent. He galvanized me too, when we "hit it off" and

began to argue about who lives a happy and carefree life in Russia. His answer: people who are satisfied with the authorities. At first I didn't understand. He explained: "It is dangerous if they are cruel. Sad if they are stupid. But there is nothing worse than having to deal with authorities who are infantile, quarrelsome, capable like a fickle girl of changing decisions a few times a day, forcing people to rush off madly in different directions, driving them to despair." Then he sighed and added: "The most terrible thing not only for the defense industry, but also for the country as a whole is the vagueness of the plans and the suddenness of the actions of the authorities. The employees in the defense enterprises, in the scientific research institutes and design bureaus, and if you include families this is 15 million people, they have been hardened by the years-long experiment, have grown accustomed to the harsh blows of fate. But still it is not entirely safe to test their patience. And this they don't want to understand."

I will return later on to this thesis. For now, how did fate strike him personally? They "blasted" a missile during testing: this wasn't connected right, that wasn't turned on. But that wasn't the point. The fact that they had "blasted" it was an emergency, and someone had to answer for it. The plant director Leonid Alekseyevich Guskov, a man of many years experience, a winner of the Gold Star, was usually restrained, but this time he blew up: He said that youth was no excuse, they weren't baking biscuits, he had a commission after him, and the company had been disgraced. He ranted on. "Prince Aleksandr, before he was Nevski, led his troop for 16 years in defense of Russia from foreigners." And so forth. Bulavkin accepted the blame and didn't try to substitute anyone else, for that was his nature.

Another time when they were making an antenna for the "Daryal" system, Minister S.A. Afanasyev visited the plant. The structure was enormous, 200 by 20 meters, and millimeter accuracy was required. The minister asked: how do you expect to maintain the dimensions? The thirty-year-old chief technician answered without batting an eye: "A light tap with a sledge hammer." Afanasyev did not see the joke. "I'll show you a sledge hammer if I hear something like that again."

The head of the antenna project was Bubnov from the Rasputin Design Bureau. He invited Bulavkin to run a plant in Gomel. And then came another offer: to go as the chief technician to the Moscow Plant im. Khrushchev. He went for advice to Guskov, whom he loved like a father, and was told: "Vyacheslav, it only looks like the director's job is easy. Your whole life, from the plant to your apartment and back. We are all working class, the director and the welder, only the responsibilities are different."

Guskov was not being sly. Bulavkin understood well what the last days of December each year were like, how the reports were already written up according to plan, but there still was no plan as such, and items were in the

assembly shops. And then at eight in the morning, the director would go to where the fate of this plan itself was being decided, would stand so that he could be seen and stay unmoving, voicing not a single word of reproach, casting a condemning eye on no one. And at twelve at night, as he left he would say one short "thank you." And the people waited for that word from the director.

He has been in the defense industry for thirty-five years. For ten of them he worked at the "Khrunichyev" plant. Titanium technologies, honeycomb structures, special types of welding, the first "tests" with bimetal compounds, which made it possible to keep missiles in combat readiness for 10, even 15 years. "Items" 15A35, 15A65, 15A77, the space platforms "Proton," the "Salyut" and "Mir" orbiting space stations.

A person does not live in empty space. He is surrounded by a material world, a real world. And his inner, spiritual self cannot exist apart from the external world that demands a continuous quest for new engineering solutions, new technologies, successes and disappointments. But everything of which this real world of the defense industry consists is spiritual, if you will, it is thought up, designed, and created today and tomorrow, always right now, by people of science and technology. It is impossible to separate our existence from the fruits of their minds and hands.

Some manage to do more in life than others. You envy them: how did they contrive to do so much? The general director of the "Tekhnomash," Scientific Production Association, Academician Vyacheslav Vasilyevich Bulavkin, is one of them. A talented engineer, a meticulous scientist, a wise teacher (he is still a teacher at MVTU [Moscow Higher Technological School]), an objective administrator, and finally, simply a good interview. But then, my questions irritated him in some respects. As when I asked: "So then you had no fear of rank, fought for your people, for fairness, and were not a diplomat. But now when you have 'broken through to the top,' do you sense any change in your character." He did not respond at once.

"Sometimes I don't recognize myself. I have become more restrained, more shifty. Before I would have shot from the hip. Now, now I have to think over every step. Thousands of people depend on my character. If I don't, it reflects on the whole company and its people. Thank God, I can still feel someone else's pain, and respond to their troubles. Of course, I catch myself sometimes being stricter. But that hasn't to do with my position, but with time. Every kopeck that we get for "Tekhnomash," and that means technologies for all of machine-building, it isn't just handed over, we have to squeeze it out of them. And who does that? The director.

"What about conversion?" I asked.

"Don't simplify conversion, and don't get carried away by the promises of mass consumption. Conversion is a

science, and we must implement it in a scientific manner. Otherwise it will all go up in smoke."

"Tekhnomash" has given the missile and space industry, and not only it, many unique technologies. Around two hundred from the "Energiya" - "Buran" system alone: from electron-beam working and welding to new materials. The association has its own powerful design department. Not only ideas are born here, but also pilot models. A unique machine-tool was developed here that like nothing else in the world. There are a mass of projects in progress for the aviation industry, for the medical and food industries. Alas, no buyers. Or more precisely, there are some, even a lot, but no money to buy all of this, and introduce it at a profit for themselves.

Abroad? This "Ostapo-Benderov" hope never ends. There is interest in our technologies over there, quite a bit, but they are not rushing to pay for our "know-how." They would rather grab it for free while general confusion reigns in our country.

"The situation reminds me of a famous anecdote about Hadji Nasreddin," Vyacheslav Vasilyevich said. "Remember how he paid a merchant with the sound of his coins, squeezed in his fist, after which he put it back in his pocket? But you cannot accuse the wily easterner of fraud, for in that way he was punishing another cunning person who tried to be paid not for fruit, but only for its smell. But in this case the merchant, i.e. the "Tekhnomash" collective, hears the sound of the money coming to it for the work it has done. Of course the difference is a significant one.

I agreed, and the general director argued and said that all the defense employees today have the same problem: keeping what has been built over the years, and is needed by everyone. Keeping the cadres that know how to do everything, to use the talent, knowledge and abilities of their people. "Why have I held you up? I have to pay the people their wages. Today! I can't feed them with promises, or with the sound of coins either. Where am I to get it? Say another day? There won't be another day."

And with that we parted.

TU-204 Aircraft Production Hailed at Government Meeting

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[By ITAR-TASS correspondent Oleg Velichko]

[Text] Moscow, 9 Aug—The production of the highly economical and competitive aircraft, the Tu-204, which is scheduled to replace the outmoded fleet of Tu-154 aircraft, will allow Russia to retain its place as a leading power in the world market and to boost aircraft exports. This was stated today by Viktor Mikhaylov, the general director of the "Aviastar" joint-stock company at a

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session of the Russian Federation Government Commission for Operational Issues. The value of the aviation fuel saved by the Tu-204 will be \$250 million, he noted.

It should be remembered that the allocation of financing for completing the building of a complex to produce 40-50 Tu-204 and AN-124 aircraft as well as the working capital for it were provided for by a government decision in June last year. What is more, the government adopted a decision on allocating 24.9 billion rubles [R] for this complex's working capital (16 billion rubles has been allotted).

According to Viktor Mikhaylov, the state of affairs at "Aviastar" is not improving. Of the R5 billion rubles worth of capital investments envisaged for the current year, only R1.17 billion were allotted. Only R9 billion of the R21 billion for completing the certification of the TU-204 aircraft have been transferred to its account by the Ministry of Finance and the State Committee for the Defense Industry. And this does not allow a certificate to be obtained and the full-scale marketing of these aircraft to be started.

The Commission for Operational Issues has charged a number of ministries and departments with drawing up a program of measures within a ten-day period to implement the decisions adopted by the government earlier.

DOCTRINAL ISSUES

Gareyev: Altered Role of Nuclear Weapons in Doctrine

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5 Aug 94 p 2

[Article by General of the Army Makhmut Akhmetovich Gareyev, doctor of military sciences: "The Problem Cannot Be Resolved With Nuclear Weapons"]

[Text] At the military scientific conference held recently at the Ministry of Defense, where the prospects of military organizational development in Russia were examined, they also discussed the nature of wars and armed conflicts in modern conditions, forms, and methods of employing dispositions of forces. Today, General of the Army Makhmut Akhmetovich Gareyev, doctor of military sciences, shares with readers of KRASNAYA ZVEZDA his views on these and other problems of military art.

As has been already noted on the pages of KRASNAYA ZVEZDA, nuclear strategy and the theory of nuclear war as a whole are becoming obsolete. However, this does not at all mean a return to past notions about war using conventional weapons. Nuclear weapons from now on will have a deterring, limiting influence on political and strategic goals, as well as on the course of conventional wars. Moreover, the destruction of nuclear power plants and chemical and other similar facilities will pose a great

danger. That is, in modern conditions, a conventional war (without using nuclear weapons) will be more destructive in nature.

Our military doctrine proceeds from the fact that the possibility of local wars and conflicts breaking out poses the greatest threat today. But it does not follow from this that with the end of the Cold War and global confrontation the likelihood of the unleashing of large-scale wars should be ruled out completely. Incidentally, this is also confirmed by the practice of organizational development and training of the armed forces of the leading states. And besides, it is impossible today to structure an army only as it applies to local wars and conflicts and tomorrow suddenly restructure it for other tasks. The foundations for accomplishing large-scale tasks must be laid in the beginning. At the same time, the study and elaboration of methods of waging an armed struggle in a local and conventional large-scale war under the constant threat of the use of nuclear weapons are becoming more and more timely.

On the whole, as it appears to me, talking about changes in the nature of armed struggle, it is necessary to look in a new way at the correlation of so-called direct and indirect operations. The Chinese military thinker Sun-Zi maintained that the one who knows how to wage war conquers the foreign army without fighting. But during the period of total wars, bloody battles began to be turned into an end in themselves, relegating to the background other methods of operations. It seems that in our time, the flexibility of military-political and strategic operations and the use of more diverse methods of direct and indirect operations are becoming more and more urgent and promising. And the proportion of indirect operations most likely will increase. This will be helped by nuclear deterrence, a striving for maximum conservation of professional armies, and rejection of direct support of the sides in a conflict by the great powers. Indirect operations may be expressed, above all, in political efforts to prevent wars and military conflicts. In so doing, preemptive actions may have decisive importance for preventing war. This may also be economic sanctions, sea, air, and land blockade of lines of communication, demonstration of force, subversive actions, assigning peacekeeping contingents for disengagement of the sides, and other methods of preemption widely used lately. If military operations become inevitable, the commitment of ground forces may be preceded by massive air force and naval strikes in order to deliver fire and break the enemy's will to resist.

Apparently, certain new aspects will also appear in the appearance of armed struggle of the future.

First, given all the diversity of the possible conditions of military confrontation, three basic forms of strategic employment of armed forces appear: 1) **strategic deployment** (total for a wide-scale war and partial for local wars, as was the case before the introduction of Soviet troops into Afghanistan or in the Persian Gulf area in 1991); 2)

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combat employment of the armed forces in local wars and armed conflicts, which stands out as a relatively independent special section of military art; **3) combat employment of the armed forces in a large-scale war**, which will be accomplished in the system of strategic operations unified for all branches of the armed forces (for strategic deterrence; air and air defense operations to defeat then aerospace assets and repel their attack; operations by mobile forces and combined-arms formations [obyedineniya] in continental theaters of military operations; and operations in maritime and oceanic theaters of military operations).

The most significant differences of armed struggle of the future stem from its internal content, where the operations of various armed services and branches of troops performing a huge number of very complex, interrelated strategic and operational-tactical tasks will be pressed. One must take into account the fact that rapid development of advanced technologies will increase the military-technical gap between states. Consequently, military art must be designed not only for armed struggle between enemies roughly equal in the technical respect but also for a varied level of their technical equipment.

Second, the spatial scope of armed struggle is increasing. Weapons of the future and the increased capabilities of armed forces will make it possible to deliver powerful strikes the entire depth of the dispositions of the warring states, accomplishing not only successive but also, and above all, simultaneous engagement of their most important groupings. The intensity of moral and combat influence on all war participants, including in the deep rear, is sharply increasing.

Third, of the three most important elements of engagement and battle—fire, strike, and maneuver—the importance of fire engagement is sharply increasing. The main tasks will be accomplished not during the clash of forward units, but by delivery of conventional fires from a distance. As a result, all engagements and battles will take on a dispersed nature—by frontage, depth, and altitude. Operations and combat operations will be three-dimensional in nature and involve air and ground actions, when fire and electronic strikes by land, sea, and air assets over the entire depth of the enemy dispositions are combined with frequent landings and penetration into the depth of the enemy defense by airmobile units executing strikes not only from the front and flanks but also from various directions into the enemy's rear area. On the whole, operations and combat operations will develop swiftly without the presence of solid fronts or only with their temporary stabilization and will be highly fluid in nature. At the same time, one must not rule out the fact that the front may stabilize for a certain amount of time, and it will be necessary to break through the enemy defense. So, this must be mastered in the process of combat training.

Since special importance is attached to conducting powerful air operations at the beginning of the war, and

without them an offensive by ground forces in some armies is inconceivable, aggressive coordinated operations by all armed services to defeat enemy offensive air weapons take on decisive importance in the system of armed struggle. Taking this into account, combined-arms command and control elements of the strategic and tactical level should have aerospace defenses assets in direct subordination and defeat the air enemy using all available forces and assets, and not just air defense troops. Roughly the same transformation is taking place in this area as once occurred with antitank defense. Combating the air enemy is becoming the main content of an engagement and operation.

Changes will also take place in methods of preparing and conducting offensive and defensive operations. In particular, a defensive operation designed to break up a offensive and decisively defeat an aggressor (without a lengthy retreat) can consume major forces and assets not giving way much to the attacker. And with the defensive nature of the military doctrine, oriented basically on retaliatory operations at the beginning of a war, one also must not rule out a variant in which an immediate transition to a retaliatory offensive may be executed given good intelligence and advance strategic deployment.

Much will change in the methods of delivering conventional fires and executing a maneuver. We will require new approaches to creating the necessary densities of forces and assets, concentrating the main efforts on the decisive axes, and organizing command and control.

The combat and operational training of troops and forces is structured taking into account all these phenomena. We must rid ourselves of the syndrome of the theory of nuclear war in which it was assumed that nuclear weapons will accomplish all tasks for defeating the enemy and the troops will advance at a pace of 100 km per day. Thoroughness of working out all elements of the preparation and conduct of an engagement or operation and orientation on intense combat operations with full utilization of all available forces and assets is acquiring special importance.

At the same time, literature devoted to the nature of future wars contains quite a few obviously farfetched, frivolous, and unrealistic opinions. Thus, plans developed by the general staffs for defense not only in a nuclear but also a conventional war are declared senseless. The only reasonable approach now, it seems, is to recognize the impossibility of victory in any future war. They say, military art in the future must adhere to a "nonoffensive defense" and reject all offensive operations which could lead to the occupation of enemy territory. No attempt is even made to somehow answer the question: How, without an offensive and remaining on the defense, to liberate territory captured by an aggressor and restore its sovereignty? In my view, such opinions have nothing in common with the interests of safeguarding either national or global security.

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War, of course, is an extremely undesirable, irrational means of continuing a policy. But one must realistically evaluate what is taking place and treat defense problems soberly so that it does not result in even greater calamities.

Rogov: Russia's New Military Doctrine

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[Part One of article by Sergey Mikhaylovich Rogov, doctor of historical sciences, deputy director, Russian Academy of Sciences United States of America and Canada Institute]

[Text] On 2 November 1993 the Russian Federation Security Council approved the "Basic Provisions of Russian Federation Military Doctrine." Military doctrine was adopted as an official document for the first time in our state's history.

The "military doctrine" concept itself, widely acknowledged by us in the Soviet period, denotes a set of views generally accepted in the state on the essence, nature and methods of waging war and on preparing the country and Armed Forces for it. The sociopolitical aspect of military doctrine encompasses methodological, economic, social and legal principles of achieving the goals of war. The military-technical aspect determines directions of military organizational development, technical outfitting and training of the Armed Forces and the forms of conducting military operations.

All this envisaged the presence of a document which would set forth the main issues: against whom the state can wage war, under what conditions, by what methods, and what goals it pursues in the course of war. In reality, however, a military doctrine in the form of a finished, officially adopted document did not exist either in the Soviet or the pre-Soviet period. The so-called Warsaw Pact Doctrine announced in 1987 was an exception. It formulated certain military-political principles and was propagandistic to a considerable extent.

This is an important point, because a mythologization of the very concept of "military doctrine" occurred with us to a certain extent. There also is no military doctrine as a finished document in a single other state. Basic missions and specific issues of military policy usually are formulated in a number of unclassified and classified documents which are adopted by the supreme political and military leadership and which as a rule are not comprehensive in nature.

For example, in the United States the president draws up and publishes the "National Security Strategy of the United States." Classified presidential directives also exist which touch both upon fundamental issues of foreign policy and military organizational development as well as upon their specific aspects. Corresponding documents on key issues of military policy and military

organizational development are prepared by the Defense Department and Joint Chiefs of Staff, but as a rule all of them concern individual issues from that set of problems which for us usually include the "military doctrine" concept. And if we compare our definition with what is accepted in the West, the term "declarative strategy," often used in the United States, is fully applicable, for it is absolutely obvious that the military sphere is very ticklish and a certain degree of secrecy in it is inevitable. Not one state will divulge publicly all its secret preparations, and so in my view the very concept contains a declarative meaning.

If we consider that document adopted by the Security Council, we must recall above all the circumstances under which the formation of military doctrine, the discussion, and even the struggle over military policy issues took place in Russia.

The first circumstance is the disintegration of the Soviet Union and disappearance of the Soviet state two years ago. The fact is, the Armed Forces are a tool of state policy and war is a continuation of state policy by other methods, and when the state itself called the Soviet Union disappeared, the USSR Armed Forces found themselves in a very strange and—one has to say frankly—difficult situation: they turned into a tool of policy of a nonexistent state. The need to eliminate this contradiction and bring the Armed Forces into line with the needs and interests of that state which they must defend is simply impossible to deny.

In addition, our state's system of alliances fell apart. When I say "our state," I am proceeding from the official wording applied especially actively two years ago according to which Russia is the "successor" to the Soviet Union. The system of military-political obligations of the USSR (including the Warsaw Pact), which was linked with various regions of the world and with various states, essentially ceased its existence back before the USSR's disintegration and Russia's independent move into the international arena. This factor also required developing a new military doctrine.

The bipolar system of international relations, which, as the familiar wordings went, was built on global confrontation between the Soviet Union, the socialist camp and other progressive forces on the one hand and the United States and forces of imperialism and reaction on the other, also ceased to exist. The disappearance of the bipolar system of international relations and formation of a new, multipolar system also required the introduction of very substantial corrections to the Russian state's military policy.

Finally, in my view there is one other fundamentally important question. For many years now there has been talk here about the need for military reform, and the very idea of military reform appeared in the country almost simultaneously with ideas of economic and political transformations. After termination of the USSR's existence and the appearance or rebirth of an independent

Russian state, this problem took on a new sound: What does Russia need, military reform or Armed Forces organizational development on a fundamentally new basis? This question is far from idle inasmuch as the foundations of Russia's military policy depend on the answer to it.

Thus, it is necessary to analyze a number of factors which influence the formation of Russian policy in the military sphere. First of all it is an identification of the essence of the Russian state. What is Russia? What are its national interests? The fact is, not just Ukraine, Georgia or Tajikistan are forming states today. In my view, this very wording also is fully applicable with respect to the Russian state. The very fact of a referendum held on the Constitution in December 1993 reflects the complex process of the forming of Russian statehood.

It is not just a matter of forms and structures of government. It is important to determine what is Russian territory, what its boundaries are, who is a citizen of the Russian Federation, and whether we are speaking of a state of Russia [rossiyskiy] or a Russian-speaking [russkiy] state. All these are questions which must be answered in order to construct a military policy.

The second group of problems is connected with the withdrawal of Soviet divisions from Central and Eastern Europe which began back five years ago (based on unilateral pledges of the USSR announced by M. S. Gorbachev), the reduction of the Armed Forces by 500,000 persons and so on. Since 1989 there has been a colossal process of withdrawing Armed Forces of the former Soviet Union, and now of Russia, to their own territory and, as we know, the very concept of "own territory" is changing. The fact is, initially it was planned that the main grouping of forces from Germany would be rebased to Belarus and Ukraine, i.e. to the territory now of foreign states.

An unprecedented situation took shape from the aspect of historical parallels. A grouping whose initial strength exceeded one million persons and over 40 combined arms divisions is being withdrawn. In general it is an operation compared with which it can be said that Desert Storm was simply a small-scale exercise. Back before disintegration of the USSR over 60,000 pieces of combat equipment—tanks, artillery systems, armored combat vehicles and so on—had been removed beyond the Urals from its European part and from the territory of Eastern European states. According to official data, in 1993 alone Russia removed another 30,000 tanks, 9 [sic] artillery systems and 4,200 aircraft and helicopters to its own territory. Forty-six divisions, 64 brigades, 90 air regiments and 640,000 personnel returned to Russia. Such a redeployment is a very serious problem which unquestionably creates enormous difficulties for normal Armed Forces functioning.

The third problem is the implementation of international obligations assumed by the Soviet Union and

inherited by Russia. While the USSR had 42,000 tanks on the territory of Europe in 1989 according to official data, in accordance with the Treaty on Conventional Armed Forces in Europe (and essentially on conventional weapons in Europe) Russia can have a total of 6,400 tanks in its European part in a year's time. Essentially we are faced with almost a sevenfold reduction for this kind of armament.

It is common knowledge that, being a party to the START I Treaty, Russia undertakes to reduce strategic nuclear weapons by approximately 50 percent. It is also known that the START II Treaty, which provides for even deeper strategic arms reductions compared with what the Soviet Union had, has been signed but not ratified. The strategic arsenal is being reduced by more than threefold, from approximately 11,000 to 3,000-3,500 strategic warheads.

Not just arms are being reduced, the Armed Forces themselves are being reduced as well. Three military districts, 4 combined arms armies, 4 air armies, 1 army corps, 12 motorized rifle and tank divisions, 3 divisions of air defense and 4 of the Navy, and 8 military schools have been disbanded in the one and a half years since the Russian Federation Armed Forces were created in the spring of 1992. There have been 457,000 persons discharged from the Army into the reserve or retirement.

The fourth problem is connected with nationalization of the former USSR Armed Forces by the new independent states. Former Soviet republics nationalized all Union property, including the Army, on their territory, which engendered a very serious crisis in the military environment.

As a state which formed and consolidated on the basis of ideology, the Soviet Union hardly can be categorized among the traditional type of empires. One can argue whether or not the USSR was a continuation of the Russian Empire, but one thing is unquestionable: this was a state with a rather strong internationalist urge, and the Armed Forces of the Soviet Union were really international.

If we take the national-ethnic makeup of the Armed Forces, then of course in addition to Russians practically all nationalities living in the Soviet Union were represented there, albeit unevenly: Russians and other Slavs predominated. But two years ago, when the process of nationalization of the Armed Forces by former republics began, first by Ukraine and then also by other new states, many former servicemen were faced with the question of how to determine their state affiliation and loyalty to the state: Based on language, ethnic origin, the blood flowing in your veins? Based on the territory where you serve today, although possibly you served in some other place yesterday?

This was a most agonizing choice encountered by many in the military, such as in Ukraine (and the problem of the Black Sea Fleet still has not been resolved). This

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problem concerns not just servicemen outside of Russia, for the Russian Army also is international. And the oath to the new state was to be taken not only by individual officers, but also by entire units, formations and even military districts. Components were removed from the unified body of the Soviet Armed Forces which numbered approximately a fourth of their makeup—above all these were the border districts most up to strength and well armed. Such a situation, where the military are forced to make their own choice, is fraught with complete demoralization of the Army.

The fifth problem is connected with manpower acquisition. The Army of the Soviet Union was the largest in the world (true, if we do not consider the numerical strength of the Chinese Armed Forces). It was manned on the basis of the USSR's manpower reserves. In 1989 the Soviet Army numbered 4.2 million persons. In the Russian Federation Armed Forces as of 1 December 1993 there were 2,341,000 persons, almost two times fewer. Russia's population is approximately half the size of the Soviet Union's. The draft contingent was reduced sharply because of many circumstances, including also of a political nature. As a result the personnel shortage in the Russian Armed Forces reaches almost one million persons, according to certain data; according to other data, the Army's strength level totals 70 percent.

True, the question arises here of what is taken as the basis for a reference: the actual number of personnel or the paper strength of particular units and formations? The majority of these units and formations never were completely up to strength. But the manpower acquisition problem led to where a completely unique proportion arose in the Russian Armed Forces between the numerical strength of officers and warrant officers on the one hand and privates and NCO's on the other: today there is an average of one soldier for one officer.

In the fall of 1993 two draft contingents were demobilized from the Armed Forces, i.e., those who served for two years and those who were called up for one and a half years under new legislation; as a result, there may be more officers and warrant officers than soldiers in the Army in early 1994. And this by no means can be considered a factor indicating a high qualitative level of the Armed Forces. If officers are forced to go on guard duty and engage in performing other duties which usually are performed by the rank-and-file, this is not an indicator of the Army's high combat effectiveness.

The sixth problem is the correlation between the Armed Forces and their military-economic base. Russia's gross national product [GNP] barely exceeded 50 percent of the Soviet Union's. The decline in production led to where, according to certain estimates, Russia's GNP now is approximately 38 percent of the Soviet GNP. As a result the ratio of economic potential and military strength changed sharply for Russia compared with what the Soviet Union had. This means that the burden of military expenditures, which was extremely heavy for

the Soviet Union and which became one of the reasons for its disintegration, objectively can become even heavier for Russia if reorganization of the Armed Forces is not conducted in an appropriate manner.

It is common knowledge that Russia's military industry is experiencing a very acute crisis in connection with the sharp reduction in state orders for military products. The decrease in the state order for arms procurements began back during 1989-1990 and lately has assumed an availing nature. It has been reported that arms procurements for the Ministry of Defense were reduced by 70 percent during the last year. This means that while the Soviet Union produced and procured 3,000-4,000 tanks per year, the Russian tank industry produces several tens and in the best case several hundreds of tanks. As a result, their production has been stopped completely at the Chelyabinsk and Kirovsk plants, although it continues at Omsk and Nizhny Tagil.

Thus, today Russia is paying for that surplus military might which the USSR accumulated over many cold war decades at the cost of enormous efforts. Russia cannot copy the Soviet Union and play the role of a superpower which is prepared to stand alone against all other centers of strength in the world. This problem also is linked with the reductions under international obligations mentioned above. It is one thing when, let us say, it was necessary to produce arms for an army which had 65,000 tanks, and quite another matter for an army which has 4-5 times fewer than these and other types of arms. As a result, the question of the quality of arms arises with new acuteness, inasmuch as for a long time we had a tendency to compensate with quantity for the qualitative lag in a number of kinds of military equipment.

In this connection I would like to express a debatable viewpoint. A retrospective approach shows that traditionally Russia very often waged wars by quantity, although there were exceptions, such as Suvorov, for example. But quantitative superiority over the enemy generally was a typical phenomenon of Russian military history. Now obviously we should forget about this, and for good. In case of a major war there hardly ever will be a quantitative superiority for Russia. This means the problem of quality advances to the foreground, and it must be solved on a completely different basis.

Finally, the last question—the role of the Armed Forces and their place in a democratic society and a democratic state. It is one thing when the Army was a tool of state policy in a country where the state fulfilled the role of a driving belt of the Communist Party, when the Armed Forces were a tool of party ideological policy, and another matter when an attempt is being made to create a democratic state.

In general, this problem is a triangle, the three apices of which are the state, civilian society and the Armed Forces. It is premature for now to say that a modern democratic state and mature civilian society have formed here. Under these conditions the Army's new

role and the military's place in society also have not yet been determined. Here it is not just a matter of a drop in Armed Forces prestige or of the sharply increased number of crimes against servicemen of late.

The problem of determining the military's role in a democratic society requires an analysis of several aspects. The most important of them is who makes the decision on military questions. A no less important one is to what extent general democratic processes affect the Armed Forces and to what extent the Armed Forces as a special state institution will not accept comprehensive democracy. This problem also has a reverse side: To what extent should the military take part in the country's political life? This question is far from theoretical in nature, which we were able to see in October 1993.

This is that set of problems which generated heightened attention in the Armed Forces to questions of developing a new military doctrine, because without determining the fundamentals of defense policy at the highest state level, it is of course very difficult to carry on considered military organizational development and not improvisation, avoidance and maneuvering.

It is true that sometimes the impression formed that a certain portion of our military was using the question of the need for adopting a new military doctrine as an excuse to avoid radical changes in military policy by asserting that we cannot make decisions that are radical to any extent if we have no military doctrine. This is understandable, inasmuch as, like any bureaucratic institution, the military department takes a very equivocal attitude toward any kind of reforms, especially radical ones. There exists a certain institutional resistance to reforms in the Ministry of Defense as well as in the Ministry of Foreign Affairs or any economic ministry. Echoes of such resistance also were noticeable during the discussion on military doctrine.

One also should bear in mind that the text published on 19 November 1993 in KRASNAYA ZVEZDA and certain other Russian central newspapers is not complete; it is only an account of the "Basic Provisions of Military Doctrine." Consequently, in speaking of Russian military doctrine, we must proceed from the assumption that we are speaking about an official version for the press and are not touching on those of its provisions not included in the published text.

The document states that military doctrine is a "component part of the concept of Russian Federation security." That approach should only be welcomed, but unfortunately, development of the concept was unjustifiably delayed and today Russia has no comprehensive strategy in questions of national security. The potential possibility of excessive independence of military policy is created as a result.

On the one hand, the "Basic Provisions of Military Doctrine" state: "At the present stage of development of international relations, under conditions of a cessation

of confrontation engendered by ideological opposition, an expansion of partnership and comprehensive cooperation, confidence-building in the military area, and a reduction of nuclear and conventional arms, priority importance in preventing wars and military conflicts is acquired by political-diplomatic, international-law, economic and other nonmilitary means and collective actions of the international community against a threat to peace."

On the other hand, the new military doctrine recognizes the possibility of using the Armed Forces not only for defense against aggression against Russia, but also "for protecting vital interests of the Russian Federation." And although the document affirms that "vital interests of the Russian Federation do not affect the security of other states in any way," no one at a state level anywhere has as yet specified just what, strictly speaking, they consist of.

And the very statement of the question of using military force for protecting vital interests appears to be copying familiar American wordings. In this connection one gets an impression of the readiness of Russia (just like the United States) to consider war as a lawful means of protecting its interests in the international arena. In any case it can be established that at a declarative level Russia is departing from the rejection of war as a continuation of policy by other means, as proclaimed in the period of "new political thinking."

The question which naturally arises in an analysis of military doctrine is that of the system of threats and who the enemy is against whom, strictly speaking, Russia plans to fight. And the first thing that strikes the eye is the declaration that Russia "does not regard a single state as its enemy." Thus there seemingly is no potential enemy for Russia. But if this specifically is so, then why is a military doctrine necessary at all if war is precluded? If one reads this document more carefully, one gets the impression that under conditions where Russia does not have the previous enemies—the United States, NATO, China—or another state as an enemy, a certain fuzziness and vagueness arises that does not preclude the possibility that any state may become a potential enemy of Russia.

This conclusion is confirmed by that spectrum of military conflicts and wars described in the document. This is the second question. What kind of war? The document speaks about border, local and regional conflicts, i.e., to use western terminology, for example, it is possible to interpret these concepts as low and medium intensity military conflict. It is even said that "the main danger to stability and peace is represented by local wars and armed conflicts." This conclusion differs sharply from basic provisions of the previous Soviet doctrine, which never was formulated in a finished form, but in fact served as the basis of the Soviet Union's military organizational development. It viewed global confrontation and global armed conflict between socialism and capitalism as a very real prospect.

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"Repulse of aggression on a local (regional) scale" is specified in the doctrine as one of the primary tasks. Does this thesis cancel the previous basic line of Soviet military doctrine? This is doubtful. What is meant by a regional conflict? Obviously it substantially exceeds a local conflict in scale. Does this mean that we are speaking of a military conflict encompassing the European or Asiatic region, i.e., an entire theater of war? Is it possible to draw the conclusion that we do not exclude a general European war or large-scale war in Asia? In fact, the term "regional war" may conceal a conflict of horrifying dimensions. The document states that "under certain conditions armed conflicts and local wars may develop into a large-scale war." The concept of "large-scale war," which is not revealed in the military doctrine, also can be interpreted as a global war, inasmuch as the document does not exclude simultaneous conduct of war in several theaters—in Europe, Central Asia and in the Far East.

At any rate, the key question of what kind of military conflict and what kind of war may threaten Russia does not receive a precise and clear answer. We are faced with an entire spectrum of wars without a precisely expressed, clear priority.

A scenario is described which regards as realistic a large-scale war in which, as the document states, enemy use of long-range, precision, conventional weapons capable of engaging strategic targets and strategic installations on Russian territory is possible: "Deliberate actions by an aggressor aimed at destroying or disrupting the functioning of strategic nuclear forces, the missile attack warning system, and installations of nuclear power engineering and the atomic and chemical industry can become factors increasing the danger of a war using conventional weapons developing into a nuclear war."

The question naturally arises: What enemy are we speaking of? When such supermodern and technically complex weapon systems as Tomahawk sea-launched cruise missiles or the JSTARS reconnaissance-strike systems are used, it is obvious that this is of course not a conflict with Estonia, not with Iran and not even with China. What is implied is the possibility of a clash against a coalition of the largest and industrially most developed states, which are capable of committing aggression against Russia by engaging targets on the territory of Russia with those conventional weapons which are possessed today only by the United States and which are being developed or can be developed by Germany, France and Japan. Consequently, the West continues to be considered as the most dangerous enemy.

The next question accordingly arises: Just what is the goal of war? On this account the doctrine four or five times uses a wording previously absent from our declarative documents, at any rate from the early 1960's under Marshal Sokolovskiy, when we did not resort to pacifist

statements in our declarations and when official documents stated directly that our goal was to destroy imperialism, build an ideal future on its remains and hoist the red banner over the Earth.

The situation has changed since then, and the thesis of the impossibility of victory in a nuclear war was officially adopted back under Brezhnev. Until recently it could be traced through all Soviet foreign-policy and military-political documents, but it is absent in the new military doctrine...

But now a provision is repeatedly advanced which very much resembles a loan-translation from the English. A wording is copied which is used by U.S. leaders in American documents defining national strategy in the security area, specifically the termination of a conflict on conditions meeting U.S. interests. The new Russian doctrine repeats this goal almost word for word: "Inflicting defeat on the enemy, creating conditions for termination of military operations at the earliest possible stage and concluding peace on terms meeting the Russian Federation's interests."

True, the section "Military Principles of Military Doctrine" states that in case of aggression against Russia and its allies the Russian Federation Armed Forces are given a mission such as "repulse of enemy strikes from air, land and sea sectors." Such wordings also were present earlier as confirmation of the defensive nature of Soviet military policy, although they did cause some doubts: What does "repulse of a strike" signify? As in fencing, simply that you parry the enemy attack and do nothing more? But the new document speaks not just of parrying the enemy's one-handed or two-handed sword or club. The mission of inflicting defeat on the enemy implies the need to win victory in war.

Does it follow from these wordings used in the new document that Russia and Russian military doctrine rejected the idea that there can be no victor in war, at least in a nuclear war? The text of the doctrine does not eliminate this uncertainty, which allows any kind of interpretation. This also is linked with the fact that Russian declarative strategy on nuclear weapons has undergone fundamental changes.

(Article continued in next issue)

Rogov: Russia's New Military Doctrine, Part II

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[Conclusion to article by Sergey Mikhaylovich Rogov, doctor of historical sciences, deputy director, Russian Academy of Sciences United States of America and Canada Institute]

[Text] The new military doctrine states: "The goal of Russian Federation policy in the nuclear weapons area is to eliminate the danger of nuclear war by deterrence of

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the initiation of aggression against the Russian Federation and its allies." Two points must be singled out in this wording.

1. The concept of "deterrence" is recorded for the first time in our official military documents. From the outset, we previously rejected nuclear deterrence or nuclear intimidation, depending on how the English term *deterrence* is translated; nuclear deterrence was a policy of the imperialists. The most we acknowledged was the deterring role of the Strategic Missile Troops. This was a hint of nuclear deterrence, as it were, but we never completely accepted its logic. Now, however, deterrence is proclaimed as the basis of Russia's military policy in the nuclear sphere.

2. The thesis of deterring the initiation of aggression against the Russian Federation and its allies is proclaimed in the doctrine, but there is no definition of the concept of "aggression." About what kind of aggression are we speaking, and using what weapons? Nuclear or only non-nuclear? It follows from the text of the document—and this is a new and very important point—that Russia's military doctrine views nuclear deterrence as a method of deterring not only nuclear war, but also conventional war. The doctrine requires maintaining "the entire complex of strategic arms at a level ensuring . . . deterrence of nuclear and conventional wars." In just what way can nuclear weapons "deter" a conventional war? Obviously only in case the state possessing nuclear weapons employs them first, and at an early stage of armed confrontation.

Previously we had an unequivocal pledge not to use nuclear weapons first against anyone. It was not under M. S. Gorbachev, but back under L. I. Brezhnev and D. F. Ustinov in the early 1980's that the Soviet Union's pledge of non-first use of nuclear weapons was proclaimed. As we know, many in the West took this pledge to be propaganda of the first water, but in the assessments both of military as well as civilian specialists, it was not.

This also is confirmed by features of the Soviet Union's military organizational development in the 1980's and by the nature of exercises being conducted, from which it followed that the Soviet Armed Forces were proceeding from a scenario which envisaged use of nuclear weapons in a retaliatory strike. But in the nuclear sphere, when a theoretical and technical possibility of delivering a pre-emptive strike exists, a declaration of non-first use of nuclear weapons of course could not be taken at 100 percent of face value; however, by comparing it with the nature of military organizational development, exercises and troop combat training, it was possible to determine with 80-90 percent confidence whether or not a state was preparing to use nuclear weapons first.

The text of the new military doctrine states: "The Russian Federation will not use its nuclear weapons against any state party to the Treaty on the Non-Proliferation of Nuclear Weapons of 1 July 1968 which

does not have nuclear weapons." Consequently, while the Russian side's pledge of non-first use of nuclear weapons has not been withdrawn, it has been surrounded by a number of conditions. It follows from the cited wording that it now does not extend to the four other official nuclear states (besides Russia), i.e., we no longer are bound by the pledge of non-first use of nuclear weapons with respect to the United States, China, England and France. This means that under certain conditions Russia may initiate the use of nuclear weapons against these countries. It must be admitted that such an approach fits entirely within the classic formula of nuclear deterrence, the basis of U.S. and NATO nuclear policy which we always rejected, accusing the West of nuclear blackmail. But now we seemingly are beginning to mirror the nuclear position of the Americans and NATO.

True, in the formula quoted above the pledge of non-first use of nuclear weapons seemingly extends to parties to the Treaty on the Non-Proliferation of Nuclear Weapons not possessing nuclear weapons. But if we consider the meaning of this wording, doubt arises with respect to so-called threshold nuclear states, or countries with a "bomb in the basement," i.e., states which signed the Non-Proliferation Treaty but as a matter of fact give grounds to suspect that they are creating nuclear weapons or even already possess a certain number of nuclear devices. In any case such a wording permits the presumption that Russia is not bound by the pledge of non-first use of nuclear weapons not only against the four official nuclear powers, but also against threshold states such as Israel, India, Pakistan, North Korea and certain others.

Moreover, the doctrine contains two reservations. First of all, it announces that Russia will not use nuclear weapons against a state party to the Non-Proliferation Treaty which does not possess nuclear weapons, except in case of "armed attack against the Russian Federation, its territory, Armed Forces and other troops or its allies by a state linked by an alliance agreement with a state possessing nuclear weapons." Allies of any official nuclear power fall into this category; above all, all NATO members (including Iceland), members of ANZUS, and other U.S. allies linked with the United States by bilateral mutual security treaties such as Japan, South Korea and so on. Russia also rejected a pledge of non-first use of nuclear weapons with respect to these 50-60 states.

The second exception concerns "joint actions by a state with a state possessing nuclear weapons in carrying out or supporting an invasion of or armed attack on the Russian Federation, its territory, Armed Forces and other troops or on its allies." Not only the states formally linked by military treaties with the United States, England, France and China, but also Saudi Arabia, Kuwait, Morocco and a number of other states carrying out close military cooperation with the United States and which potentially may take part in activity which may fall under the definition of "support to aggression"

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now fall under this exception. For example, providing the Americans with their bases or territory for stationing particular communications installations and so on may be viewed by Russia as grounds for using nuclear weapons against these states.

It is impossible not to note that with consideration of all reservations, Russia's pledge of non-first use of nuclear weapons essentially also does not extend to the majority of our neighbors. Only a few of them signed the Treaty on the Non-Proliferation of Nuclear Weapons. It turns out that Russia theoretically receives the right to use nuclear weapons essentially against all former Soviet republics and also against China, North Korea and Japan. If we go further, then almost all of the largest states of Europe and Asia also are encompassed by the Russian reservations and consequently Russia potentially also may use nuclear weapons against them.

Thus, summing up all metamorphoses which occurred with the Soviet Union's pledge, one can arrive at the conclusion that Russia is taking a very hard position and is giving a very activist interpretation to the concept of nuclear deterrence. In some way this can be considered a more honest approach than those propagandist-pacifist declarations which we preferred earlier. From this standpoint, the recognition that Russia adheres to the concept of nuclear deterrence is a step in the right direction, in the direction of recognizing the situation that actually has taken shape. But how this is done probably creates rather than eliminates problems.

One hardly can consider an open acknowledgment of the possibility of a situation where Russia initiates the use of nuclear weapons to be a correct step. Not one of the reservations cited above said that nuclear weapons will be used in response to nuclear aggression against the Russian Federation. Thus, we reserved for ourselves the right to use nuclear weapons if Russia suffers failure or defeat in a conflict using conventional armed forces and weapons; in this case Russia becomes the initiator of the use of nuclear weapons.

It probably would be more correct to denote this concept no longer as nuclear deterrence, but as nuclear intimidation. Authors of the military doctrine seemingly attempt to create an impression of maximum unpredictability of Russia's actions in case of its involvement in military conflicts and demonstrate a readiness to lower the nuclear threshold to the maximum extent. It is not clear here how nuclear weapons can help Russia defeat an enemy in the most realistic scenarios of future conflicts—conflicts of a local or border nature. Is it really advisable to undertake the use of nuclear weapons in case, God forbid, a military conflict spreads, for example, in Tajikistan or the North Caucasus?

The proposition that nuclear weapons can effectively deter a conventional war appears extremely debatable. For example, the doctrine itself enumerates the following "factors contributing to the development of a military danger into an immediate military threat to the Russian

Federation," including "a build-up of enemy troop groupings near Russia's borders; an attack on the Russian border; training, on the territory of other states, of armed units intended for redeployment onto territory of the Russian Federation or its allies; and introduction of foreign troops onto the territory of contiguous states." It is very doubtful that Russia will be able to parry threats of that nature and deter a military conflict with the help of nuclear intimidation.

Meanwhile, the document contains a wording from which it follows more or less clearly that nuclear weapons may be used in case the enemy uses conventional weapons against strategic installations, i.e., an attack on a chemical plant will serve as grounds for use of nuclear weapons by Russia. The doctrine also names among factors of an immediate military threat "actions of other countries impeding the functioning of Russian systems for support of strategic nuclear systems and of state and military command and control, above all their space component." Does this mean that nuclear deterrence is applicable, for example, with respect to the Russian-Latvian dispute over the radar at Skrunda or possible similar conflicts with other former Soviet republics over missile attack warning system installations or space tracking stations located on their territory?

In my view, such an interpretation of nuclear deterrence clearly assigns those political missions to Russian nuclear weapons which they hardly are capable of accomplishing. The history of the nuclear arms race convincingly attests that with all its shortcomings, the system of nuclear deterrence operated only in relations between nuclear powers, above all between the USSR and United States, but proved ineffective with respect to local and border wars, be it in Vietnam or Afghanistan, in the African Horn or in Nicaragua.

It seems we have dashed from one extreme (total disavowal of our adherence to nuclear deterrence) to another by attempting to make nuclear deterrence the basis of Russian military policy in almost all its aspects. It is obvious that such exaggerated reliance on nuclear weapons reflects a lack of confidence that Russia is capable of solving problems of its defense without them.

The military doctrine also asserts that "any, including limited, use of nuclear weapons in war even by one of the parties may provoke massive use of nuclear weapons and will cause catastrophic consequences." Does this mean that the idea of limited nuclear war between nuclear powers is rejected? It is difficult to give an unequivocal answer inasmuch as, as follows from our analysis, "one of the parties" may be Russia, which now takes for itself the right to initiate the use of nuclear weapons. It already was noted above that in principle the doctrine does not reject the possibility of nuclear war. Moreover, if Russia can use nuclear weapons first, then the conclusion about their "massive use" can be interpreted as a hint that we may undertake an immediate escalation of a nuclear conflict.

A certain vagueness is apparent with respect to a preemptive or first nuclear strike. The fact is, massive use can have meaning only if its initiator figures on inflicting damage on the enemy such that it precludes or sharply weakens his retaliatory strike. This deliberate uncertainty is contained in one other wording, which advances the mission of "keeping the makeup and status of strategic nuclear forces at a level ensuring guaranteed delivery of given damage on an aggressor under all situation conditions."

This would appear to sound like what was called "guaranteed destruction" in the West several decades ago. But this is not quite so, because previously we spoke about guaranteed delivery of damage on an aggressor in a retaliatory strike, but now it is "under all situation conditions." The stipulation concerning a retaliatory strike has disappeared. It most likely follows from this that we will continue to place reliance on a surprise retaliatory counterblow, but this means that with the very same approach on the American side, the system of mutual nuclear deterrence between Russia and the United States not only is preserved, but also may acquire even greater instability.

A surprise retaliatory counterblow requires those strategic systems and that degree of their combat readiness which essentially are indistinguishable from what is required for delivering a preemptive strike. The new doctrine, and this is indicative, states that "those forms, methods and means of conducting combat operations must be chosen which meet the situation at hand to the greatest degree and ensure seizing the initiative and inflicting defeat on the aggressor." Special significance is attached to "destruction of installations of systems for command and control of enemy troops and weapons." Does this mean that we are talking about preparing if not for a disarming strike, then at any rate for a decapitating strike? Have we really again come to believe in the possibility of victory in nuclear war?

In any case, even if it is impossible to reject the system of mutual nuclear deterrence immediately, it must be changed substantially, otherwise it will lead without fail to a contradiction with the Russian-American strategic partnership announced at the highest level. And the rejection both by the United States and by Russia of preparation for a surprise retaliatory counterblow must be the first step toward the necessary evolution of strategic interworking.

The decision announced at the Russian-American meeting in Moscow in January 1994 that the two countries' strategic missiles no longer will be targeted against each other or against third countries became a factual acknowledgment of this need. The usefulness of such a measure hardly can be denied. In any case, it helps avoid an accidental or unsanctioned launch of missiles, but such an approach does not fully solve the problem of strengthening strategic stability.

"Nontargeting" of missiles is not subject to verification by national technical means, and even if it is accomplished in practice, missions can be secretly loaded and launch commands given at any minute. The technical possibility of a preemptive strike is preserved despite political declarations and assurances. The system of mutual nuclear deterrence also remains in effect in relations between Russia and the United States. Rejecting it requires on the one hand a transition to positive interworking and real cooperation of the two countries in the military-strategic sphere, and on the other hand total rejection by both countries of those strategic systems capable of engaging hardened targets in a short time, i.e., capable of being used for a disarming and decapitating strike.

But Russian military doctrine sidesteps these questions, which causes concern. Several other arguments can be cited which, in my view, confirm the conclusion that new wordings with respect to nuclear weapons signify a substantial change in Russia's declarative nuclear strategy, and by no means for the better. Suffice it to note that the new doctrine essentially proceeds from the need to terminate the present moratorium on nuclear weapon tests and postpones their complete cessation for an unspecified time. In addition to all else, that approach comes into contradiction with the task of strengthening the Treaty on the Non-Proliferation of Nuclear Weapons, which is mentioned repeatedly in the document. By openly placing emphasis on nuclear deterrence, in just what way do authors of the doctrine figure on keeping other states from a similar policy with respect to Russia?

As noted above, the need for deterring aggression against the Russian Federation and its allies is proclaimed in the military doctrine. Just who is Russia's ally today? The document states: "In the matter of maintaining international peace and security the Russian Federation views as partners all states whose policy does not harm its interests and will not contradict the UN Charter." The need for fulfilling Russia's international obligations "of giving military assistance to countries allied with it and to peacekeeping operations" also is pointed out. Three levels of partnership are outlined here as it were: CIS; CSCE and other states and military-political structures in adjoining regions; and the United Nations.

On this basis is it possible to draw a conclusion to the effect that Russia has no enemies, only allies? Of course, such a conclusion would be premature. The international organizations indicated in the doctrine are not military-political alliances. Accordingly, we cannot count on automatic assistance of member states of these organizations in case of aggression against Russia. With respect to such military-political blocs as NATO, Russia is not a part of them and the new military doctrine by no means views them as allies. Moreover, "an expansion of military blocs and alliances to the detriment of interests of Russian Federation military security" is categorized among the sources of military danger—above all an expansion of NATO clearly is meant.

In calling things by their right names it is possible to establish that today Russia has no genuine military allies. The Collective Security Treaty includes only a portion of CIS members, and one hardly can have doubt about who will give help to whom in case of war. The conflict in Tajikistan showed that essentially we are speaking of Russia's unilateral obligations. In fact, this also is acknowledged indirectly in the military doctrine, where it emphasizes that "security interests of the Russian Federation and other states parties to the CIS may require the stationing of troops (forces) and assets outside of Russian Federation territory."

The impression forms that the problem of allied relationships ended up almost being reduced to the question of Russian military bases on the territory of former Soviet republics. Without question, in the near term Russia will be interested in preserving such bases if only because of the impossibility of an instantaneous withdrawal of all troops and installations to its own territory. It is also not worthwhile rejecting the involvement of Russian troops in peacekeeping operations, again chiefly on former USSR territory. But the fact is that the problem of allied relationships does not reduce only to this. Russia cannot be in isolation in a multipolar world, where sharp clashes because of economic, ethnic and territorial conflicts are not precluded. We need strong allies capable of giving Russia not only moral or political, but also military support if necessary. But we have no such allies today.

This seemingly is the main difficulty which developers of the doctrine encountered. Recognizing the possibility of large-scale conflicts involving the great powers, they are forced to proceed from the assumption that Russia is not integrated into powerful international security structures and has ended up in military isolation. Consequently, it is impossible to count either on military superiority or even on the notorious parity, which in recent decades was considered the basis of our military policy. The new doctrine does not even mention parity. Hence both the clearly inflated role of nuclear weapons in the new doctrine and at the same time the unrealistic attempts to build a "defense along all azimuths" in the sphere of conventional arms and armed forces as well.

The next question concerns the direction of military doctrine. While a few years ago we had fashionable discussions about a "defensive doctrine," which almost excluded the offensive as a form of combat operations, the new doctrine rejects that approach: "The Russian Federation Armed Forces must be ready for redeployments to threatened axes in minimum time periods and for aggressive operations, both defensive as well as offensive, with any variant of the initiation and conduct of wars, under conditions of the massive use of present and future weapons." We thus rejected the idea of a "defensive" doctrine.

With respect to Armed Forces organizational development, the "Basic Provisions of Military Doctrine" avoid specificity in answers to questions of with what forces

possible military threats must be parried and how Russia will build its defense using conventional armed forces and conventional weapons. Who can object to such good wishes as "maintaining a defensive potential at a level adequate to existing and potential military threats"? Such rubbery wordings according to the principle of "better rich and healthy than poor and sick" give no precise answers to questions of fundamental importance. For example, a local border conflict of the type going on in Abkhazia, Osetia or even Tajikistan is one thing and a war on a general European scale, a continental conflict, is another. Armed Forces which hardly are identical in makeup, training and armament are required for involvement in such conflicts.

One and a half or two years ago we said a great deal about the need for upgrading the Army and for relying on mobility. It was emphasized that Russia cannot build a "Maginot line" around its borders, that an attempt to erect fences, so to speak, along the new Russian borders was a stupid undertaking.

Considering the experience of our Minister of Defense, this approach was reflected in the concept of creating mobile forces, the basis of which are to be the Airborne Troops. Not long ago it often was said at an official level that the covering forces on the Russian border can be relatively insignificant; in case a serious military threat appears, a mobile striking force situated in the vicinity of the Urals, in the center of Russia, is required which can be used to parry a threat in a particular theater of war.

Although mobility is mentioned in the new military doctrine, I would say that the emphasis has been removed from mobile forces. Moreover, the following is asserted: "In armed conflicts and local wars military operations can be waged by groupings of peacetime troops or forces stationed in the conflict area. If necessary they will be reinforced through partial deployment and movement of forces and assets from other main axes."

The meaning of this wording is that in peacetime Russia must keep rather powerful groupings on the main axes or in the main theaters capable of parrying a threat. And with respect to mobility, again it is being said that if necessary they will be reinforced through partial deployment and movement of forces from other axes, i.e., not a unified mobile reserve, but groupings deployed in other theaters. Such an approach requires establishing in peacetime in the main theaters of war those force groupings and in that quantitative makeup which will possess considerably greater capabilities than those being spoken of, for example, a year or a year and a half ago. This means that the idea of small or relatively small Armed Forces (a numerical strength of 1.2-1.5 million persons) has faded into the background, if it has not been discarded completely.

It is common knowledge that in the Law on Defense the previous Supreme Soviet set the numerical strength of

the Russian Armed Forces at one percent of the population. I do not know of one world state which would set the ceiling of the Army's numerical strength as a percentage of the population. In my view, this is a typical example of daring in actions of the former Supreme Soviet. At the same time, if we take a look at the real situation, in the majority of world countries (including the United States, Germany, France, England and China) the numerical strength of the Armed Forces is considerably less than one percent. From this standpoint one percent is the ceiling as it were which the old Supreme Soviet set for the Armed Forces.

Now this ceiling has been removed by decision of executive power, although no one repealed the Law on Defense. If we tie one in with the other, it will become understandable that it is a question not simply of a departure from the absurd situation of fixing the numerical strength of the Armed Forces as a percentage of the population, but that they must be large enough in their makeup so as to perform missions simultaneously in each theater of military operations. That means this is linked with the next question: Just what kind of Armed Forces manpower acquisition is envisaged?

Not long ago we were speaking a great deal about a transition to manpower acquisition on a volunteer basis, i.e., about rejection of the draft system and a transition to a professional army. But as of the beginning of 1994 only 123,000 contract personnel were serving in the Russian Armed Forces. As before, the emphasis is being placed on drafting young men of appropriate ages into the Army. On 2 October 1993 the president signed the Edict Repealing Deferment for Pupils of Tekhnikums and Vocational-Technical Schools. The deferment for students of many higher educational institutions also is being questioned. Thus, the General Staff hopes to bring the Armed Forces strength level up to 90-95 percent by the end of 1994. This will permit having 2.1 million servicemen instead of an Army of 1.5 million as envisaged earlier, i.e., Russia plans to enter the 21st century by having placed under arms the very same percentage of the population as did the Soviet Union at the height of the cold war in the 1980's.

The section "Military Principles of Military Doctrine" speaks of three stages (the first stage ended in 1992-1993). In the second stage (up to 1995) it envisages a continuing transition to a mixed system of manpower acquisition and in the third stage (up to 2000) it speaks about its completion.

This means that preservation of a system of call-up into the Armed Forces is envisaged in the Russian Federation up to the end of the present decade. The transition to volunteer manpower acquisition is being put off to the period beyond the year 2000. Military reform itself essentially also is being put off until this time. At any rate, from the new doctrine it is impossible to understand what the basis tasks and directions of reform are and whether or not it is needed at all.

The statement of the question of the internal role of the Armed Forces also draws attention. This, too, is a new, important change in our declarative strategy. In the Soviet period our Army's internal role was flatly repudiated. It was asserted that the USSR Armed Forces had only one function—defense against imperialist attack.

I think this was a hypocritical position. An Army of any state always had, has and will have an internal function. The mission of maintaining internal peace under emergency circumstances has to be accomplished not only by police units, but also by armed forces. Suffice it to mention the U.S. National Guard, which usually is brought in in case of any kind of riots, disturbances and so on, and regular troops also are used if necessary. They also had that function in the Soviet period, and it is possible to cite a large number of examples beginning, for example, with the Novocherkassk events of 1962.

But the new doctrine probably for the first time speaks not simply about acknowledging an internal function; a rather broad description of this function is given. In my view, internal functions of the Armed Forces are described so broadly that the question arises: Why do we have Internal Security Forces? If we compare what this document says about the Army with the functions for the sake of which, strictly speaking, Internal Security Forces are created, the distinctions are very, very slight. This is not a question of semantics, for the Armed Forces are trained to perform specific missions. Nevertheless, the new doctrine poses in an extremely uncommon way their essentially equivalent orientation toward performing both external as well as internal functions. And I believe this fact draws attention especially in connection with the role which the Armed Forces played in October 1993, when the Army played a role in a political confrontation, in a constitutional conflict, probably for the first time in Russian history, perhaps since the times of Decembrism.

And in conclusion I would like to touch on the question of how the military doctrine was adopted. Generally the discussion about the need for a new military doctrine went on over a period of several years, during which time various kinds of drafts were advanced, both of a democratic as well as of a conservative orientation. The draft finally adopted—at any rate its published part—reflected this discussion, although, judging from everything, the majority of proposals by reform proponents were rejected.

Why did this happen? One should take into account the following circumstance, which in my view is extremely important. Military doctrine and fundamental documents formulating state policy in the military sphere never were purely military documents. And in Soviet times a provision was drawn up rather precisely and clearly to the effect that the political part of military doctrine was formulated by the state political leadership or, as was written at that time, the CPSU. In general, the military leadership never drew up the political part of military doctrine either in Soviet or pre-Soviet times.

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From this standpoint the new military doctrine is a unique document inasmuch as it was drawn up by the military department with the very limited involvement of supreme bodies of the country's state authority. It was adopted with violations of certain constitutional provisions and of a number of laws, including the Law on Defense, which were in effect at that time. The military doctrine was supposed to be approved by Parliament; instead it was formalized by decision of the executive power, the Security Council.

The makeup, functions and apparatus of the present Russian Federation Security Council differ radically from a National Security Council, which exists, for example, in the United States. As always, we seemingly took a sensible idea to the absurd. Acknowledging several years ago that security is not exhausted by purely military factors, we made it a comprehensive concept. Therefore our Security Council works on ecology, public health and whatever it likes; however, in the sphere of security proper, i.e., in questions of foreign and military policy, intelligence and so on, its role and competence for now are not great, to put it mildly.

On the whole, in my view the new military doctrine can be described as a deposition of four layers.

First of all, it is an acknowledgement of certain realities in which Russia found itself. And in my analysis I naturally basically discussed controversial things. This document contains many provisions which in my view are indisputable in nature and reflect that situation our state is in after termination of the cold war and disintegration of the USSR.

Secondly, this document preserved a number of residual layers of the Gorbachev period. I would say, which look like impregnations made under the pressure of the Ministry of Foreign Affairs. Many of these ideas have disappeared, but a portion remained of what at one time was categorized as "new political thinking," when this phrase was uttered with a plus and not a minus sign.

The third layer is a return to the pre-Gorbachev and even pre-Brezhnev period. In particular, old ideas appear in certain wordings connected with the possibility of victory in war even with respect to the use of nuclear weapons. Here one clearly senses familiar motifs almost of the late 1950's and early 1960's.

Finally, the fourth layer is a copy of American, NATO and western doctrinal provisions. It seems our military always had a certain envy of its American colleagues, who had no need to constrain themselves to the framework of pacifist phraseology. But now we are beginning to resort enthusiastically to borrowing what not long ago was regarded as forbidden fruit.

Therefore I believe it is possible to agree that this is a "document of the transition period," as stated in its preamble, and hardly can be used as the basis for reform and organizational development of the Armed Forces in the next few years.

Most likely the "Basic Provisions of Military Doctrine," as well as many similar documents of an economic and political nature being adopted by us recently, will be forgotten rather quickly. Like everything occurring in our country, this obviously is only one stage in forming a new policy, a stage with both pluses as well as minuses. The military doctrine, including the "Basic Provisions," which were officially approved on 2 November 1993, cannot be a document set in stone.

The idea of military doctrine as a kind of Armed Forces catechism was inherited by us from previous times, when people waited for a CPSU Congress which would adopt a new program where everything would be written out, or for a Central Committee Plenum on agriculture or chemicalization where all problems would be outlined and their solutions determined once and for all. As a matter of fact, not one document in this sphere can be set in stone or can determine all problems once and for all, and the evolution of the Russian state itself, of the Russian economy and also of the international situation inevitably will require corrections to be made both to the declarative as well as the actual military policy.

But the situation causes alarm when, as before, the Armed Forces have no precise guideline from the supreme state political leadership and are forced to improvise, deciding at their own liability and risk questions of key importance for Russian Federation security. The divergence between military strategy and state policy is fraught with the most negative consequences. This is especially dangerous when nationalist and fascist groupings in Russia appeal directly to the Army, passing themselves off as defenders of its interests and attempting to receive support in power structures for seizing power in the country.

SECURITY SERVICES

Border Troops Intelligence Chief Interviewed

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PRAVDA in Russian 9 Aug 94 p 8

[Interview with Lieutenant General A.A. Beshpalov, chief of Russian Federation Federal Border Service Intelligence Directorate and deputy commander in chief of Border Troops, by Vladimir Zaynetdinov under the "From the Life of the Special Services" rubric; place and date not given: "Interview With Someone Who Has Never Given an Interview"—first three paragraphs are introduction]

[Text] In addition to the well-known Russian Federation Foreign Intelligence Service and the General Staff Main Intelligence Directorate [GRU]—the celebrated "Akvarium"—one other crafty "office" exists in Russia. People started talking of it only quite recently, when the undeclared war broke out in Tajikistan. It is the Intelligence Directorate of the Russian Border Troops High Command.

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For the first time in its history the Border Troops' intelligence chief has granted an exclusive interview to a KOMSOMOLSKAYA PRAVDA correspondent.

From KOMSOMOLSKAYA PRAVDA's file: Lieutenant General Aleksandr Aleksandrovich Bepalov is chief of the Russian Federation Federal Border Service Intelligence Directorate and deputy commander in chief of the Border Troops. He is 51 years old. He has spent 33 of these years in service. He graduated from the Higher Border School in Alma-Ata [Almaty]. He served on various sections of the border. He is a graduate of the USSR KGB Higher School. He worked in military counterintelligence organs. While "serving" the Border Troops, he passed through all the steps from "operations officer" to chief of the Transcaucasus Border District Special Section. During 1991-1992 he led the Federal Government Communications and Information Agency's own security service. He has held the post of chief of the Border Troops Intelligence Directorate since 1992. He is married with a son who is a third-year student at Moscow Aviation Technology Institute. He does not have a dacha or a garage. He received an apartment in Moscow quite recently.

[Zaynetdinov] Aleksandr Aleksandrovich, even less is known about your service than about the mysterious "Akvarium"—the General Staff GRU....

[Bepalov] Intelligence in Russia's border guard service dates back to the time of Peter [the Great], when customs duties were introduced and smugglers naturally appeared. These were followed by other border violators. Political defectors, fugitive criminals.... The question arose that the guard service should have its "own eyes and ears" on the contiguous territory....

In the Soviet Border Troops intelligence came into being virtually simultaneously with their creation. When the Russian Federation Border Troops were formed two years ago, the Intelligence Directorate was formed within them. Later an edict of the Russian president created the Federal Border Service—the High Command of the Border Troops, where our Intelligence Directorate is located today.

It is entrusted with conducting intelligence, counterintelligence, and operational-investigative activity in the interests of ensuring that the state border is guarded. The work is of a dual nature: On the one hand we obtain information for the Border Troops, and on the other we ourselves guard the border in our own specific ways. If you do not mind, I will not speak about them.

[Zaynetdinov] Both the Foreign Intelligence Service and the GRU operate according to the law "On Foreign Intelligence." For some reason it does not mention intelligence in the Border Troops. Is this an oversight?

[Bepalov] Not at all. By means of his edict the Russian president extended that law also to our service. In addition, under the law "On the Russian Federation

State Border," the Border Troops are permitted to conduct operational-investigative and intelligence activity and to engage in counterintelligence. Accordingly, we can make full use of all legislation in this regard.

We represent operational-tactical intelligence. But if we net information of a strategic nature, of course we do not reject it—naturally, only within the framework of guarding the border. A huge number of threats to the security of Russia and of other states where our border troops serve is arising today on individual sections of the border. Frequently these threats take shape deep within the territory of contiguous states. And not just contiguous ones. We are obliged to know about this.

Here is an example—illegal migration, which has truly become a calamity. Its centers lie not only in China, Afghanistan, or Pakistan but also in India, Libya, Ethiopia, and even rich Saudi Arabia. The drugs business? We have already seen heroin coming from Mexico and Colombia. We tackle these questions too.

[Zaynetdinov] How are relations shaping up between border intelligence and Russia's "kindred" special services?

[Bepalov] We cooperate most closely with the Foreign Intelligence Service. This probably came about historically, dating back to the times of the unified KGB. We work particularly closely on the Tajik-Afghan border.

For example, we learn that the intransigent opposition and their gunmen receive considerable assistance from nongovernmental structures in Saudi Arabia and Pakistan. Money and advisers come mainly from the Arabian Peninsula. The gunmen's leaders are also firmly ensconced there. Weapons come from Pakistan and Afghanistan. The Foreign Intelligence Service gives us a lot of help in these matters.

We exchange information with the GRU, by virtue of the special functions of that special service, when it is a question of military aspects of Russia's security.

[Zaynetdinov] You do not have resident agents or other traditional "attributes" of intelligence—illegals and "undercover" agents (intelligence officers working under the "cover" of some department). What do you have?

[Bepalov] Each border district has an intelligence section, whose chief is deputy commander of the district. The border detachments have intelligence sections. Although we have a vertical structure, we are not at all isolated from the ordinary border guards. We do the same work.

The law allows us to use all the means and methods at the disposal of intelligence to ensure the operational guarding of the border. Everything depends on the set task. Anticipating a question about numerical strength, I will say: We make up less than 1 percent of the Border Troops' strength (in 1994 there are approximately 200,000 border troops—V.Z.).

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[Zaynetdinov] Who reads the Border Troops' intelligence summaries?

[Bespalov] Reports are placed on the desks of border detachment chiefs, commanders of border districts and groups of forces, and the commander in chief of the Border Troops. We also report to the president on individual questions. Our information is also useful to the local power structures.

[Zaynetdinov] Can you cite examples where particular lofty political decisions have been made at your instigation?

[Bespalov] At the Russian Security Council's 13 July session, which discussed the question "On the Russian Federation State Border," full use was made of information provided by our service.

[Zaynetdinov] Specifically?

[Bespalov] There was the unilateral designation of the border with Estonia—there could be no more delay. And the problem of migration. A recent example. Approximately 2,500 mujahedin, professionals at their business, are fighting in the Karabakh war on Azerbaijan's side. Under pressure of irrefutable proof even the Afghan head of government has admitted this fact. Taking this into account, an operation to detain "illegals" is being conducted on the Dagestan-Azerbaijan sector of the Russian state border not without our participation. During just one day of the operation we detained 20 gunmen who were secretly making their way into Russia. Why do these professional saboteurs and terrorists come to us?

Take the illegal movement of weapons, ammunition, and drugs. On the Estonian border this year border details have confiscated more than 100 pistols being smuggled into Russia. If you think that a border detail just "happens" to inspect the right railcar or vehicle and finds contraband goods, having unscrewed 17 screws, you are mistaken. A criminal group which had been engaged in getting people illegally across the border and preparing false documents was unmasked with our help in St. Petersburg quite recently. Seven people were arrested. Hundreds of blank passports, counterfeit seals and stamps, and also highly professional equipment for the manufacture of all this were found on them.

Now about somewhat more important matters. We possess information that Nuri, the head of the so-called opposition government of Tajikistan in exile, is going all out with a new campaign to prepare sabotage against Russian border guards and servicemen of other states who are defending the Tajik-Afghan border. A special directive has even been issued concerning our intelligence officers—to take active measures to annihilate

them. At our instigation the Tajik Ministry of Foreign Affairs made an official statement in this regard. Last spring's large-scale troop exercises in Tajikistan also were not conducted by chance—intelligence worked efficiently.

The recent three-week Operation Foreigner in Maritime Kray, to expel Chinese "illegals," was also based on border intelligence information. Approximately 2,000 people without the right to be in Russia were detained.

[Zaynetdinov] Where are cadres trained for your intelligence?

[Bespalov] Selection is tough. Staffers used to be trained for us at the Foreign Intelligence Institute and the KGB Higher School. We took in graduates of civilian higher educational institutions, from the Moscow State Institute of International Relations, the humanities faculties of Moscow State University, and others. The number of applicants has now dropped. But we are finding a way out. An intelligence faculty has been set up under the Border Troops Academy. We select people, as previously, from among acting officers. Incidentally, military training, with knowledge of the specific nature of the border troops, is precisely one of the indispensable conditions of service in our directorate.

[Zaynetdinov] Foreign intelligence had "Vypel," and the GRU its special purpose units. Does the Border Troops' intelligence have anything similar?

[Bespalov] The Intelligence Directorate does not have its own special purpose troops. But, mindful of the situation—the emergence of organized criminal groupings which try to operate in the environs of border posts and border crossing points—special subunits are being set up. In the border districts they will be regular groups manned by officers and ensigns alone. In border detachments it is proposed to have non-t/o special subunits. We cooperate closely on this question: with the Main Guard Directorate—the famous "Alfa"; with the GRU—we have something to learn from their special purpose troops. We have already worked out a training program. "School leavers" are being recruited, and training is under way.

[Zaynetdinov] Was the Border Troops' intelligence involved in freeing prisoners of war in Afghanistan?

[Bespalov] Yes. With our help two soldiers returned to the motherland. But I cannot name them, since we might jeopardize our sources. Last year our intelligence officers secured the release of two other servicemen. Incidentally, not a single border guard was captured throughout the Afghan war.

[Zaynetdinov] Have there been any defectors in your intelligence?

[Bespalov] So far God has been merciful.

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